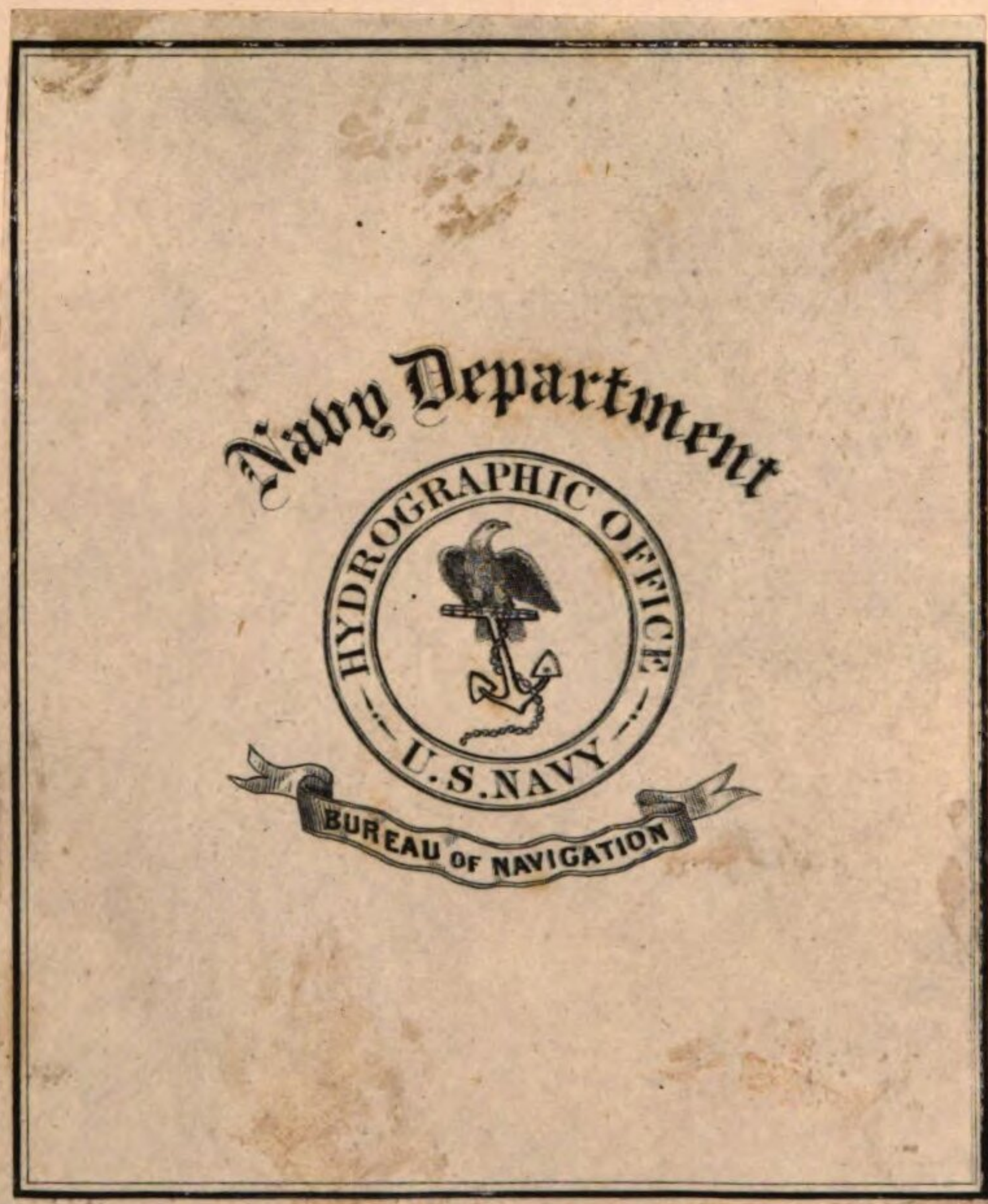


LIST OF
REPORTED DANGERS
IN THE
PACIFIC OCEAN.

A. Hydr.
56^f

List





REPORTED BY THE COMMISSIONER OF THE GENERAL LAND OFFICE

IN THE YEAR 1871

WHICH SHOWS THE AMOUNT OF THE RENTALS OF THE LANDS IN THE DISTRICT OF THE COMMISSIONER OF THE GENERAL LAND OFFICE

IN THE YEAR 1871

A LIST
OF THE
REPORTED DANGERS TO NAVIGATION
IN THE
PACIFIC OCEAN,

WHOSE POSITIONS ARE DOUBTFUL, OR NOT FOUND ON
THE CHARTS IN GENERAL USE.

COMPILED AT THE BUREAU OF NAVIGATION, NAVY DEPARTMENT,
WASHINGTON CITY.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1866.



INTRODUCTION.

A Register Chart of Dangers to Navigation in the Pacific Ocean, the reported positions of many of which are doubtful, and the existence of many others by no means certain, was prepared at the office of the North Pacific Surveying Expedition, and published in 1857, by order of the Navy Department, for the information and use of navigators.

Since the publication of that Chart, many dangers to navigation, not embraced in it, have been reported through various channels, the existence of some of which may be reasonably questioned, and the positions of all of them considered too doubtful to render navigation in those seas easy and safe. The number of reported dangers having increased to such an extent as to forbid the addition of them in a new edition of the Chart of 1857, this list has been compiled, and is published for the benefit of navigators, with the hope that it may assist them in determining, when opportunity presents itself, the true positions of those which actually exist, and in obtaining reliable data to warrant the erasure from the Charts of those reported dangers which really do not exist.

It will be observed that the name of the reported danger, its Latitude and Longitude, probable true position, (when more than one position is given,) the authority or person reporting it, and a brief description of it, are given in each case in this list.

Navigators would confer great benefits upon their brother seamen by availing themselves of every favorable occasion to verify, and, if need be, correct the reported positions of dangers to navigation in the Pacific Ocean.

BUREAU OF NAVIGATION, *Navy Department,*

Washington City, July, 1866.

List of reported dangers to navigation in the Pacific Ocean.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1	Shoal in the Bay of Anadir.	64 15 00 N.	178 00 00 W.	0 ' "	0 ' "	Capt. Middleton, of bark Tenedos.	Discovered in 1851, with only eight feet of water upon it; about two miles in extent; not given by charts.
2	Bank.....(about).	62 50 00 N.	169 00 00 W.	.....	.....	Capt. Letelliers, of whaler Ajax. (Annales Hydrographiques, vol. VII, p. 19.)	The Ajax was lost upon a bank, said to be ten miles south of St. Lawrence Island. The report gives to the position of this danger a range of three degrees of longitude twenty miles of latitude; charts show no danger thereabout.
3	Rock near Jonas Island.	56 27 00 N.	143 14 00 E.	.....	.....	Captain Howes, of ship China. (Honolulu Friend.)	About 1½ mile N.W. by N. from the island, with but six inches of water upon it when seen; state of tide unknown. It is the more dangerous, as the soundings elsewhere around the island are deep. Charts indicate rocks to the northeast and southeast of the island, but none to the northwest.
4	Reef	55 00 00 N.	167 20 00 E.	.....	.....	Honolulu Friend, September, 1847.	A whaler reports a dangerous reef, one-third of a mile in extent, Copper Island bearing S.E., twelve miles distant, and the southeast point of Behring's Island S.W., eighteen miles distant, with heavy breakers in bad weather, but not indicated when the sea is smooth; probably from three to five fathoms water on it. It is not on the charts.
5	Rock.....	45 47 00 N.	142 10 00 E.	.....	.....	Letter published in the Nautical Magazine, 1860, p. 225.	The writer fell in with a rock in the middle of La Perouse Straits, fifteen feet high, which is probably the same as that given in the charts under the name of "Opostnot," or "Danger Rock," but may, perhaps, be a different one, as these straits are yet very little known to navigators.
6	Barrick Rock.....	45 22 00 N.	140 40 00 E.	45 42 00 N.	140 42 00 E.	Capt. Lopez, of whaler Napoleon III,	The whaleship David Barrick is said to have been lost on a rock twelve miles west of Rifunsiri, which may be identical with the "rocky ledge, nine feet," (above or below water?) given in Blunt's chart of the North Pacific Ocean, twelve miles N.W. by N. from that island, called there Tashee Island.
7	Reef	44 23 00 N.	152 53 00 W.	.....	.....	Capt. Palmer of bark Kingfisher.	Not given in charts.

8	Voevoda Rock.....	42 16 00 N.	137 18 00 E.	.....	.....	Russian Imperial Corvette Voevoda. (Annales Hydrographiques, XVI, p. 176.)	Is sixty-nine feet long east to west, eleven feet high; given in British Admiralty charts, but not in Blunt's general chart of the Pacific Ocean.
9	Hesperion Rocks.....	42 05 00 N.	139 35 00 E.	.....	.....	Capt. Blanchard, of ship Hesperion. (Mercantile Marine Magazine, 1860, p. 66; Horsburgh's Directory, II, p. 490.)	The Hesperion ran upon rocks six and a half or seven miles off Okosiri Island, which the China Pilot and Horsburgh's Directory (latest edition) state to be but two miles off it, in the position which the British Admiralty charts place them, as shown in the columns of latitude and longitude. The U. S. steamer Hancock, whilst surveying the west coast of Yesso, did not find them.
10	Island.....	41 54 30 N.	133 46 50 E.	.....	.....	Capt. Farreau. (Annales Hydrographiques, 1864, I, p. 236.)	No description is given of this new discovery, which, according to its reported position, would be about sixty-five miles off the coast of Tartary; it is neither shown by the British Admiralty nor by Blunt's chart.
11	Rock.....	41 44 30 N.	124 24 45 W.	.....	.....	Capt. De Camp, of U. S. steamer Shubrick. (Mercantile Marine Magazine, 1860, p. 189.)	Is ten miles west of Crescent City, California, the top barely out of water; not yet generally marked on charts.
12	Rock.....	41 26 30 N.	141 27 30 E.	.....	.....	Com'dr Webb, of H. B. M. ship Rattler. (Nautical Magazine, 1865, p. 615.)	Lies E. by N., three-quarters of a mile from White Islet, north of Sirija-saki, or Cape Nambu, in Tsugar Straits; awash at low water; is doubtful, since the U. S. steamer Hancock, when surveying the straits, sounded close to this spot in ten fathoms.
13	Bittern Rocks.....	40 30 00 N.	139 15 00 E.	40 29 00 N.	139 32 00 E.	Com'dr Vansittart, of H. B. M. ship Bittern. (Nautical Magazine, 1855, p. 603.)	Three small rocks, nineteen miles off the west coast of Nippon—the largest one 130 feet long by twenty-five feet broad, seven feet above the surface at high water; the next in size is less than one-third that of the largest; the smallest is probably covered at high water—grouped within a cable's length, steep-to on the west side, and fifteen to seventeen fathoms water found at two cables' distance from them. There is some broken water near them to the eastward. From the largest rock, land about Cape Gamaley bears magnetic (variation 3° 20' W.) N. 58° E.; a distant high mountain (Peak Tiliesius) N. 79° E.; Footsima Island (cape of the Russians) S. 11° E. The position given opposite as probable is from the survey of the United States North Pacific Surveying Expedition, and agrees very nearly with the latest British Admiralty charts.
14	Rock off Cape Mendocino.	40 25 00 N.	124 24 00 W.	.....	.....	Capt. Dall, of the ship Northerner. (Mercantile Marine Magazine, 1860, p. 69.)	The Northerner struck upon a sunken rock two miles off Cape Mendocino, which is always covered, and lies about midway between Blunt's Reef and the main. Raper places Mendocino Cape in 40° 29' N., 124° 32' W., whilst the latest report of the United States Coast Survey places it in 40° 25' N., 124° 22' W.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
15	Tabusima Island.....	39 11 53 N.	139 36 39 E.	39 09 00 N.	139 30 00 E.	A letter in the Nautical Magazine, 1860, p. 226.	The reported position is intended to be a correction of the place given to the island by Commander Richards, H. B. M. Navy, in 39° 31' N.; 138° 52' E., in which it was placed by British Admiralty charts until lately. The position given as probable is that assigned to the peak of the island (200 feet high) by the United States North Pacific Surveying Expedition. Blunt's Pacific chart places the island erroneously in 39° 19' N., 139° 50' E.
16	Three Islands.....	38 49 00 N.	152 24 00 E.	.....	.....	Newspaper report.....	Improbable; not placed on any chart.
17	Nimrod Rock.....	38 07 00 N.	120 58 00 E.	.....	.....	Lieut. Lespès, of the French ship Norzagaray, (<i>Annales Hydrographiques</i> , XVI, p. 512,) and Com'dr Wynniatt, of H. B. M. ship Nimrod. (<i>Nautical Magazine</i> , 1859, p. 344.)	A ledge of rocks, extending north-northwest and southeast one-half of a mile, over which the sea breaks heavily. One rock rises two and a half feet above water; others are awash. The central rock in line with the west point of Kwang-chin-tao N. 6° E., with the east point of Takin-tao N. 11° W., with the west point of same N. 20° W., with the north point of Toki N. 58° W., and with the south point of same N. 71° W. It is placed by the British Admiralty charts nearly two miles to the northwest of the French position, stated opposite, although very nearly the same bearings are reported. Another rock is reported by Master Tabez, of the British ship Hesper, to lie N.E. $\frac{1}{2}$ E. two and three-quarter miles from the Nimrod Rock, N. $\frac{1}{4}$ W. eight and a half miles from Ta-chu-san, or Great Bamboo, and E. $\frac{1}{4}$ S. eight miles from the south point of Mo-chang-shi Island, appearing like a wreck with timbers above the water, probably covered at high tide; thirty yards in extent east and west, eight or ten yards wide, three feet water over some parts of it, five to six fathoms close to it, and a line of tide or shoal water extending apparently some distance to the westward. This danger seems not to be marked on English charts, and it may be identical with "Nimrod Rock."
18	Noonday Rock.....	37 47 15 N.	123 08 45 W.	37 47 15 N.	123 08 45 W.	Nautical Magazine, 1864, p. 390....	This rock, upon which the ship Noonday was wrecked, has been established by the United States Coast Survey to be three miles W. $\frac{1}{4}$ N. (by compass) from the northwestern-

19	Rock in Gulf of Pe- chili.	37 34 55 N.	121 39 41 E.	37 35 30 N.	121 38 11 E.	Commander of Prussian sloop-of- war Arcona. (Annales Hydro- graphiques, 1862, II, p. 467.)
20	Reed or Falmouth ...	37 24 00 N.	137 27 00 W.	} 37 28 00 N.	137 28 00 W.	{ Capt. Reed, of brig Emma.... U. S. sloop-of-war Falmouth... Capt. Redfield, of whaler Su- san Abigail. (Shipping Gazette, December 3, 1850; Nautical Magazine, 1856, p. 258, and 1864, p. 445; Ann. Hydr., VI, p. 14.)
21	Rocks.....	37 24 00 N.	137 27 00 W.			
22	Rocks.....	37 35 00 N.	137 30 00 W.			
23	Hornet Islands, or { Liancourt Rocks. }	37 15 03 N. 37 02 00 N.	131 55 08 E. 131 46 00 E.	} 37 17 09 N.	131 54 23 E.	{ English squadron, 1855..... Capt. Lasset, of the French whaler Liancourt. (Nautical Magazine, 1855, p. 602; Ann. Hydr., IV, p. 17.)
24	Tannestown Island ..	36 49 00 N.	131 48 00 E.			
25	Shoal	36 45 00 N.	124 10 00 W.			
25	Actæon Shoal.....	36 31 30 N.	122 28 00 E.			British ship Actæon. (Mer. Mar. Mag., 1860, p. 188.)

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
27	Sixty-four Fathom Bank.	0° 36' 25" N.	0° 179' 30" 00 E.	0° 0' " "	0° 1' " "	China Mail.....	Appears on Blunt's chart, but is not marked on the British Admiralty chart; perhaps it is identical with No. 34 or 35 of this publication.
28	New Island.....	35° 21' 00" N.	141° 42' 00" E.	.....	.....	Capt. Stanley, of the bark Palmetto.	A flat island, reported to be nine miles long and without vegetation, would be about forty-five miles from the east coast of Nippon; its existence is very improbable. It does not appear upon any chart.
29	Elmstone Rock.....	35° 13' 00" N.	139° 43' 00" E.	.....	.....	Capt. Ranlett, of the ship Golden State, and Capt. Ward, of H. B. M. ship Actæon. (Naut. Mag., 1862, p. 447 and 500.)	In the Uraga Channel, leading into Yedo Bay, with ten feet over it at low water, more than 300 feet in extent, with kelp near the surface. From the shoalest part, the east extreme of Cape Kami-saki bears N. by E. $\frac{1}{2}$ E., the south extreme of the northern shore of Uraga Cove W. $\frac{1}{2}$ N., and the Plymouth rocks S. by W. To avoid it, do not bring Cape Kami-saki eastward of N. $\frac{1}{2}$ E., or the Plymouth rocks southward of S. by W. $\frac{1}{4}$ W. The rock is not generally marked on charts.
30	Sunken Rocks, about.	34° 55' 00" N.	139° 48' 00" E.	.....	.....	Commander Ward, of H. B. M. navy. (Nautical Mag., 1862, p. 504.)	Uneven, rocky ground in the vicinity of Cape King, east coast of Nippon, where 3 fathoms water were found, from which the south extreme of Susaki bore N.N.W. $\frac{1}{4}$ W., the summit of Cape Nina (nearest highland) N.E. by E. $\frac{1}{2}$ E., and the east extreme of land E. $\frac{1}{4}$ S. There is perhaps less water, indicated by heavy rollers. This shoal appears to be the Mela ledge of the British Admiralty chart, and is not yet generally marked.
31	Sentinel Island	34° 33' 00" N.	128° 47' 00" E.	.....	.....	Ship La Capricieuse.....	The British Admiralty chart gives this island in 34° 33' N. 128° 41' E.
32	Lady Inglis Reef.....	34° 28' 00" N.	138° 16' 00" E.	.....	.....	Capt. Twizzle, of the ship Lady Inglis. (Nautical Mag., 1862, p. 502.)	The Lady Inglis was wrecked on a rock, reported to be six miles S.S.E. from Omae-saki, southeast coast of Nippon, about one-quarter of a mile in extent, with parts showing at low water. A junk is said to have struck shortly afterwards and sunk with all hands. The exact position has not been ascertained, as the vessels soon broke up. The U. S. surveying schooner Fenimore Cooper, Lieutenant Brooke commanding, passing close to the reported position, did not see anything, and the report is considered doubtful.

33	Rock in the Straits of Simonosaki.	34 28 00 N.	131 00 51 E.	.....	.....	H. B. M. ship Barossa. (Ann. Hydr. XXVII, p. 240.)	Is sixty fathoms long, northwest and southeast, with four feet water over it on the southern and two fathoms on its northern extremity, with five fathoms between both extremities at low spring tides, and deep water close to. From the rock Moze-saki bears S. 62° W., Isaki S. 68° E., Kusi-saki N. 35° E., and the south point of Manziu N. 61° E. It is a late discovery, and is shown on the British Admiralty charts of the straits of 1865.
34	Sixty-four Fathom Bank.	34 25 00 N.	179 30 00 E.	} 34 25 00 N.	} 179 08 00 E.	{ Alta California Whaler report	The British Admiralty chart gives two shoals near this locality in 34° 25' N., 178° 30' E., and 34° 00' N., 178° 12' E. Blunt's chart also gives two shoals, one degree farther south, in 33° 22' N., 178° 30' E. and 33° 00' N., 178° 20' E. There appear to be soundings between the latitudes of 33° and 35° N. and the longitudes of 178° and 180° E.
35	Mellish Bank	34 25 00 N.	178 47 00 E.				
36	Portsmouth Breakers.	34 14 00 N.	138 17 00 E.	.....	.....	Capt. Foote, of U. S. steamer Portsmouth. (Nautical Magazine, 1858, p. 271.)	A line of breakers, extending north-northeast and southwest from three to five miles, seen from a distance of three miles. The position is deduced from observations; it requires examination. British Admiralty charts give these breakers as doubtful; Blunt's general chart does not show them.
37	Mitake or Kozu-Sima.	34 05 00 N.	139 30 00 E.	.....	.....	Nautical Magazine, 1866, p. 109 . . .	The volcano on this island has lately been found in action; charts generally have marked it as extinct.
38	Island.....	33 58 00 N.	126 22 00 E.	.....	.....	British consul at Nagasaki. (Nautical Magazine, 1860, p. 556.)	The British steamer Remi was lost during a fog on an island, said to lie about thirty miles to the northward of Quelpart, in the reported position, and not marked on charts. The latest Admiralty chart shows there the Bate group; Blunt's general chart gives islands more to the northward.
39	Plata Rock.....	33 56 00 N.	169 15 00 E.	.....	.....	Whaler report.....	Not given by any other authority. Blunt's chart shows a "Roco de Plata" in 33° 50' N., 160° 50' E., but this also seems questionable, as it is not mentioned in any other chart or directory. (See No. 43.)
40	Swain's Reef.....	33 48 00 N.	130 12 00 E.	33 48 00 N.	130 12 00 E.	Master Dutton, of H. B. M. ship Encounter. (Annales Hydrographiques, 1862, II, p. 468.)	This ledge with many rocks awash, S. 67° E. from Obree Island, was heretofore doubtful in position, and was given so in the Japan chart of the United States North Pacific Surveying Expedition, in 33° 49' N., 130° 09' E.
41	Some rocks.....	33 42 00 N.	139 17 00 E.	33 38 00 N.	139 16 00 E.	U. S. steamer Powhatan	Are the Inaniva or Broughton Rocks, 345 feet high, well established by the United States North Pacific Surveying Expedition to be in 33° 38' N., 139° 16' E. Raper has them 33° 35' N., 139° 30' E.
42	Bank	33 06 00 N.	122 38 00 E.	.....	.....	Capt. Tricault, of the Duchayla. (Annales Hydr., XVI, p. 513.)	Captain Tricault found, unexpectedly, to the northward of the Yang-tze-kiang, seven fathoms water, hard bottom, and carried seven and eight fathoms for nine miles, when eleven fathoms were found.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
43	Crespo Island.....	0° 33' 00" N.	0° 17' 00" E.	0° 33' 00" N.	0° 17' 00" E.	Whaler's report.....	Charts and directories give, in about 32° 45' N. and 170° 10' E., Crespo or Plata Island, generally as doubtful, evidently based upon a reported discovery of a high island by Captain Crespo, in 1801. (See Findlay's Directory.)
44	Swift Island.....	33° 00' 00" N.	119° 06' 00" W.			Whaler's report.....	Would be midway between San Clemente and San Nicolas Islands, and surely does not exist.
45	Hiki-sima Island..... Sumo Rock.....	32° 53' 00" N. 32° 53' 00" N.	129° 33' 00" E. 129° 37' 00" E.			Nautical Magazine, 1865, p. 687. Mer. Mar. Mag., 1865, p. 364....	A notice just published by the Hydrographic office of the British Admiralty states as follows: "The Pinnacle Rock, with an arch through it, is not Hiki-sima, as stated in the China Pilot, p. 518, but the outer rock of the Suwo-sima group. Hiki-sima is a partially cultivated island, apparently a mile and a half long, about 280 feet high, with a cone-shaped hummock at its southeast extreme, connected with the main body of the island by a long strip of shore; reefs appear to extend about three-quarters of a mile off the north side of it. The easternmost of the Suwo-sima group is fully a mile and a half to the eastward of the other two rocks, with a clear deep water passage between them. H. B. M. steamer Tartar observed a dangerous reef parallel to and distant about one mile from the north side of the island. The reef appeared to be about one mile long, and to be nearly covered at high water, three or four boulders remaining dry. The steamer Corea, when passing at two-thirds flood inside Hiki-sima, discovered a small detached rock, on which the sea was constantly breaking, three cables E. by S. $\frac{1}{2}$ S. from the centre of the island. Both the outer and inner of the Suwo-sima group are Pinnacle Rocks." There may be yet many dangers in the vicinity of the numerous islands off the coasts of Japan that are not marked on the charts, and these should be passed at a prudent distance, until such dangers are discovered, and their positions ascertained.
46	Cortez Shoal.....	32° 30' 00" N.	119° 08' 00" W.	32° 25' 45" N.	119° 05' 00" W.	Steamship Pacific. (Naut. Mag., 1853, p. 335; 1856, p. 219; and 1857, p. 165.)	A shoal in the Barbara Channel, near the California coast, within the fifteen-fathom curve, extending about 16 miles W.N.W. and E.S.E., four miles broad; the shoalest spot, two and a half fathoms, is near the eastern extremity. The

shoal has been accurately determined by the United States Coast Survey; in Blunt's general chart of the Pacific it is placed 11 miles too far north.

{ All these probably refer to one and the same island, the correct position of which would be approximately the mean of the given positions. There is one discrepancy in the data, which is against this assumption. Captain Lovett describes his rock as pyramidal, from 35 to 40 feet high, whilst Captain Tibbitt calls his island high, visible 12 miles, and Captain Grove gives to his an extension to 32° 09' N., 139° 18' E., saying that at the same time he saw South Island. His South Island may be William III Island, (see No. 58,) to the southward, but it might as well have been an island to the northward, in which case Lovett's Island would be a separate one, from 15 to 20 miles northward of the other. The British Admiralty chart, as well as Blunt's, gives for all these islands only one, the former Aoga-sima, in 32° 36' N., 139° 44' E., the latter Ononga-sima, in 32° 50' N., 139° 55' E. Horsburgh's latest edition places it in 32° 38' N., 139° 50' E., and describes it as three miles long, visible 36 miles, with a steep coast, and a landing-place on the east side, where there is a rock level with the water, at a little distance from the land. The entire chain of islands, stretching southward from Fatsio, is comparatively unknown, and requires a thorough examination.

S.E. by S. from his island, (No. 49,) distant four miles, Captain Drescher saw some rocks, 10 to 15 feet high, which are not shown by charts.

Reports ridges of sand, with shoal water of only two and three fathoms; are not marked on charts.

{ Both reports certainly refer to three rocks, 18 miles N.W. $\frac{1}{2}$ W. from the Ass's Ears, near the southwest coast of Japan, well established by Lieutenant (now Commodore) John Rodgers, of the United States North Pacific Surveying Expedition. The latter's position of the southernmost rock, 60 feet high, is that given as the probable one; the two northern rocks are half a mile distant from it. Blunt's chart does not show them; Horsburgh places them in 128° 14' E.

Cluster of rocks, the highest of which is reported to be about 40 feet high. This danger is not given by any authority, and the reported position is most probably erroneous by 10° of longitude. 139° 45' would make it identical with William III Island, (see No. 57;) the coinciding description would suggest the probability of their identity.

{ Captain Lovett, of brig Eagle ...
Admiral Krusenstern.....
Capt. Drescher, of bark Walter..
Captain Grove, of bark Live
Yankee.
Captain Tibbitt, of bark Lark...
Captain Rodgers, of ship Flavius.
(Shipping and Mercantile Gazette;
Nautical Magazine, 1852, p. 689,
and 1856, p. 394; Ann. Hydr.,
IV, 139; and VIII, 253; Hors-
burgh, II, p. 482.)

Captain Drescher, of bark Walter.
(Ann. Hydrographiques, VIII,
p. 253.)

Commander of H. B. M.'s ship
Coromandel. (Mer. Mar. Mag.,
1861, p. 122.)

{ Ship La Capricieuse.....
Russian frigate Pallas.....
(North China Herald; Hors-
burgh, II, p. 497.)

Capt. Grove, of bark Live Yankee.
(Naut. Mag., 1856, p. 394.)

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
57	Rocky Islet.....	31 56 00 N.	140 10 00 E.			{ Capt. Barras, of ship Euphrosine. Capt. Jurien la Gravière, of French frigate Bayonnaise. Capt. Van Braam—Hookgeest, Neth. navy. Capt. Rodgers, of ship Flavius.. (Different newspaper notices, Ann. Hydr., IV, p. 139.)	These, doubtless, have reference to one and the same danger. Captain Barras calls his discovery a rocky islet, one-quarter of a mile in extent northeast and southwest, of rugged appearance, like three or four vessels under sail, with a reef extending one-quarter of a mile from the northeast point. Admiral Jurien appears to have surveyed it closest, and his description is probably the most correct. He calls it an island, 20 feet high and 650 feet long, with numerous rocks to the northward. Captain Van Braam gives a similar description of it. Captain Rodgers lastly describes it as a cluster of rocks 10 or 12 feet high, 100 yards long, and 50 yards broad. Having also seen Flavius Island, (No. 52,) he proves that the latter is not identical with the islands enumerated here. The position of Captain Rodgers is probably too far south, as Captain Dulaney, of the United States frigate St. Lawrence, searched there for it unsuccessfully. Only one danger is given for all of these positions by the British Admiralty chart and by Blunt's chart—by both in 32° 00' N. and 139° 58' E.
58	Bayonnaise Island...	32 01 00 N.	140 00 00 E.				
59	William III Island...	31 53 00 N.	139 59 00 E.	31 54 00 N.	139 57 00 E.		
60	Flavius Island.....	31 47 00 N.	139 38 00 E.				
61	Clerck's Reef.....	31 45 00 N.	137 50 00 E.			Old reports, cited by Admiral Krusenstern.	This reef may also be the above cluster. In the reported position no danger is shown on any charts.
62	Reef.....	31 42 00 N.	141 10 00 E.			Newspaper notice.....	The same may be the case with this; it is not given in the reported position.
63	San Francisco Island.	31 35 00 N.	140 38 00 E.			British Admiralty chart of the Pacific Ocean.	{ Both these may be one and the same island, and a report by the ship Hurricane of a rock, 1,200 feet high, seen September 3, 1852, bearing southeast eight miles from the ship, the position of which two hours later was ascertained to be in 31° 44' N., 140° 30' E., may have reference to the same, if an island exists there. The Admiralty chart gives San Francisco Island doubtful; Blunt's chart has nothing thereabouts. Perhaps these reports may refer to Heber Island. (See No. 75.)
64	Jeannette Island.....	31 30 00 N.	140 00 00 E.			Old reports, by Admiral Krusenstern.	
65	Reef.....	31 30 00 N.	154 00 00 E.			China Mail	Is doubtful; nothing is given there in Blunt's chart, but the British Admiralty chart has marked near this position three doubtful shoals in 31° 30' N., 153° 00' E.; 31° 18' N., 154° 20' E., and Ganges reef in 30° 47' N., 154° 20' E.

66	Moor Island	31 27 00 N.	145 40 00 E.	.....	Old report, cited by Admiral Krusenstern.	The existence of this island is improbable; it is given in Blunt's chart of the Pacific, but is not in the British Admiralty chart.
67	Sylph Rock	31 25 00 N.	142 40 00 E.	.....	Old report, cited by Admiral Krusenstern.	The same is the case with this reported rock.
68	Retribution Rocks ...	31 10 00 N.	129 40 00 E.	{ 31 19 00 N. 129 43 00 E. }	{ H. B. M. ship Retribution..... United States ship Mississippi..... H. B. M. ship Sampson..... United States North Pacific Surveying Expedition. (Mer. Mar. Mag., 1859, p. 345; Horsburgh, II, p. 497.)	{ The Retribution claims the discovery in 1858 of three rocks near the southwest coast of Japan, the middle one bearing from Roche Poncié Peak N. E. by E. $\frac{1}{4}$ E., and from the Tsukarose Islands S. $\frac{1}{4}$ W., (magnetic.) The Sampson intends to correct the latitude. But these rocks had already been discovered in 1854 by the United States ship Vincennes of the North Pacific Surveying Expedition, and named Dobbin Rocks; they were by a running triangulation connected with the main land and well established. The above bearings agree with those found by the United States Expedition. The British Admiralty charts place them in 31° 20' N., 129° 47' E.; Blunt omits them in his general chart. There are some rocks reported near this locality by a Danish vessel, but most probably they are the same, as the Vincennes had fine weather and every opportunity to see any rocks above water for many miles on each side of her track.
69	Mississippi Rocks ...	31 13 00 N.	129 40 00 E.			
70	Sampson Rocks.....	31 23 00 N.	129 37 30 E.			
71	Dobbin Rocks	31 19 00 N.	129 43 00 E.			
72	Reef.....	31 18 00 N.	153 20 00 E.	.....	Newspaper notice, by whalers....	Compare No. 65. Nothing is given in this position by charts, but there is evidently danger somewhere near it. Bowditch gives Week's reef about there, extending 36 miles northeast and southwest.
73	Wake's Island	31 14 00 N.	155 00 00 E.	.....	Newspaper notice, by whalers....	No island is given near this position on most charts. The British Admiralty chart has a doubtful island in 30° 55' N., 155° 00' E., and a second one in 31° 00' N., 154° 40' E. Compare Nos. 81 and 91.
74	Island.....	31 19 00 N.	160 42 00 E.	.....	Newspaper notice, by whalers....	Nothing is marked in this position on the British Admiralty and Blunt's charts.
75	Heber or Smith Island	31 12 00 N.	139 55 00 E.	{ 31 15 00 N. 139 52 00 E. }	{ Capt. Smith, of ship Heber..... Reports by Admiral Krusenstern. H. B. M. ship Tribune..... (Nautical Magazine, 1860, p. 446; Horsburgh, II, 482.)	{ Captain Smith reports an island, small and bare, about 250 feet high. Captain Stickney, master of the bark Sarah Warren, after making Ponafidin, (see No. 85,) saw on the same day a rock resembling a ship under full sail, and a few yards to the eastward of it another smaller rock, upon which the sea broke furiously; estimating them N. by W. $\frac{1}{4}$ W., distant eight or nine leagues from his position of Ponafidin. The Tribune passed a high, pinnacle-looking rock, about three-quarters of a mile in circumference, with a small rock close to its north side, and breakers extending one-quarter of a mile from it. Blunt's chart shows Smith Island in 31° 15' N., 139° 55' E.; the British Admiralty chart in 31° 16' N., 139° 40' E.
76	Rock.....	31 09 00 N.	138 30 00 E.			
77	Smith Island.....	31 18 00 N.	139 50 00 E.			

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
78	Group of islands.....	31 06 00 N.	129 24 00 W.	31 06 00 N.	129 24 00 E.	Report by whalers.....	Nothing is known to exist in the reported position. Perhaps, by a mistake, west longitude is reported instead of east longitude, in which case this would be the Udsi-sima or Roche Ponciè Group, near the southwest coast of Japan.
79	Shoal in the mouth of the Yang-tze-kiang.	31 06 44 N.	122 15 10 E.			Capt. Mitchell, of the ship Queen of Nations. (Nautical Magazine, 1863, p. 149.)	Captain Mitchell had a shoal east of four and a half fathoms, when the Ariadne Rocks bore W.N.W. distant two miles, and immediately afterwards another east of six and a half fathoms. Charts have nothing less than six or seven fathoms.
80	Same, (about).	31 01 42 N.	122 07 00 E.			Nautical Magazine, 1866.....	The captain of the port of Shanghai reports that a Chinese junk has sunk at the mouth of the Yang-tze River, about seven miles S.E. by S. from the light-vessel. As the mast of the junk is not visible, seamen must beware, as she is the nucleus of a formidable danger.
81	Island.....	31 00 00 N.	155 00 00 E.			China Mail.....	Compare No. 73.
82	Island.....	31 00 00 N.	147 16 00 E.			Whaler report.....	The British Admiralty chart places an island in this position. Blunt's chart in 31° 8' N., 147° 00' E.
83	Island.....	31 00 00 N.	144 24 00 E.			Whaler report.....	Not marked on any chart.
84	High Island	30 42 00 N.	140 06 00 E.	30 36 00 N.	140 12 00 E.	American brig Hannah Cheever Capt. Stickney, of ship Samuel Warren. Capt. Neal, of schooner Wilson. Ship Claremont..... Lieut. Ponafidin, Russian navy. Lieut. Ponachlivin, Russian navy. Report cited by Admiral Krusenstern. (San Francisco Herald; Naut. Mag., 1860, p. 446; Merc. Mar. Mag., 1858, p. 90; Ann. Hydr., IV, p. 139; Findlay, II, p. 1157.)	The Cheever reports simply a high island. Captain Stickney saw an island, moderately elevated, with uneven appearance. Captain Neal describes it as high, showing three peaks. Lieut. Ponafidin says it is formed of three hummocks, and Lieut. Ponachlivin gives to it the form of a truncated cone. The other reports give no description. These islands are no doubt identical, and all recent charts and directories show them to be so. The British Admiralty chart places them in 30° 30' N., 140° 20' E.; Blunt's in 30° 36' N., 140° 12' E.; Raper in 30° 31' N., 140° 15' E., and Findlay in 30° 30' N., 140° 15' E. An island called Todos Santos, marked on some charts in about 30° 48' N., 139° 10' E., is in all probability the same island.
85	Island.....	30 42 00 N.	140 30 00 E.				
86	Neal's Island	30 40 00 N.	140 38 00 E.				
87	Island.....	30 33 00 N.	140 00 00 E.				
88	Ponafidin	30 29 00 N.	140 06 00 E.				
89	St. Peter's Island	30 32 00 N.	140 25 00 E.				
90	Rebecca Island.....	30 33 00 N.	139 37 00 E.				
91	Island.....	30 40 00 N.	155 00 00 E.			Whaler report.....	Compare Nos. 73 and 81.

92	Powhatan Reef.....	30 41 00 N.	130 19 00 E.	30 42 00 N.	130 20 00 E.	Lieut. Boyd, U. S. steamer Powhatan. (Compare Naut. Mag., 1860, p. 385.)	Reef of rocks, the centre one fifteen to twenty feet high; others a few feet above the level of the sea or awash, about one mile in extent. From the centre rock the southwest point of Volcano Island bears N. W., the east point of the same N. $\frac{1}{2}$ W., and the east point of Fakesima or Apollos N. E. $\frac{1}{2}$ N. The position given as probable is that wherein the bearings place it on the chart of Japan by the United States North Pacific Surveying Expedition. The British Admiralty chart places the reef in 30° 40' N., 130° 25' E., and on Blunt's chart it is omitted.
93	Reef	30 47 00 N.	130 19 00 E.	30 47 00 N.	130 19 00 E.	Lieut. Boyd, U. S. steamer Powhatan. (See Naut. Mag., 1860, p. 385.)	Reports reefs extending about three-quarters of a mile from the eastern and northeastern points of Volcano Island, near the southern coast of Japan. They are marked on the charts of Japan, just alluded to.
94	Reef	30 48 00 N.	130 26 00 E.	30 48 00 N.	130 26 00 E.	Lieut. Boyd, U. S. steamer Powhatan. (See Naut. Mag., 1860, p. 385.)	A rocky spit, extending from the east side of Fakesima or Apollos about one-fourth of a mile, and is also marked on the charts.
95	Cairnsmore Rock....	30 42 10 N.	122 34 40 E.	.....	.....	From a letter published in Naut. Mag., 1858, p. 556.	This rock, situated in the channel between Parker Islands and the Saddle Island group, near the east coast of China, on which the ship Cairnsmore was lost, is described as a perfect pinnacle, rising out of twelve fathoms, on a forty feet base, with only eleven feet at low water spring tides on its top, and without any indications on the surface. From the rock the southeast point of Race-horse Island bears south, the southeast point of Raffle Island in a line with a small rugged rock close to the same, S. 59° W., and the northernmost rock of the Chesney group (very conspicuous) N. 59° W. Vessels are advised to keep on the Saddle Island side.
96	Nemesis Rock	30 41 00 N.	122 35 00 E.	.....	.....	French frigate Nemesis. (Ann. Hydr., XV, p. 13.)	The Nemesis passed near an unknown rock with the following bearings: Islet on the southeast point of Sea-horse, S. 1° W.; northeast point of Sea-horse, S. 45° W.; south point of Raffle Island, S. 82° W.; awash N. 67° W.; islet W. N. W. of awash, N. 63° W. The rock from this position distant two cables, bearing S. 50° W. These bearings would indicate a new rock to the southward of the foregoing, (No. 95.)
97	Yerabu-sima, or Julia Island.	30 26 00 N.	130 12 00 E.	.....	.....	Naut. Mag., 1860, p. 109.....	The captain of the Oriental mail steamer Pekin reports to have seen this volcano (which was thought to be extinct) in action. Vessels may rectify their position by it, day or night.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
98	Mariners' Hope Reef.	0° 30' 25" N.	0° 122° 05' 00" E.	0° 0' 10"	0° 1' 10"	North China Herald, Feb., 1857. (Merc. Mar. Mag., 1857, p. 223, and 1860, p. 191.)	The Mariners' Hope is reported to have struck on a reef between Fisherman's group and Chusan Islands, which was found to be one-third of a mile long east and west, and two cables' length broad. From the ship, which had seven fathoms under her bow and only five feet astern, the southern extremity of Chusan bore E. $\frac{1}{2}$ S., large volcano S.W. westerly, the Rugged Islands from N. N.W. $\frac{1}{4}$ W. to N. N.E. $\frac{1}{4}$ E., and Skead Island S. $\frac{1}{4}$ E., distant three miles. A subsequent report says that the Hamburg bark Emerald was lost on a rock about three miles from Skead Island, S. $\frac{1}{4}$ E., confirming the above. The British Admiralty charts still give this reef as doubtful.
99	St. Thomas Island...	30 15 00 N.	142 30 00 E.	.....	.....	Laurie's charts.....	Capt. Keyser, of the bark Undine, reports to have sailed directly over this position without seeing anything. No other charts have this island marked on them.
100	Shoal	30 15 00 N.	131 01 00 E.	.....	.....	Capt. Boxer, of H. B. M. ship Hesper. (Naut. Mag., 1866, p. 220.)	Capt. Boxer, while passing through the Colnett Straits, observed some rocks off the southeast point of Tanega-sima, and a shoal about two miles S. SE. from them—the whole nearly seven miles from the southeast point of the island; and when the south point of Tanega-sima bore N. about eight miles, and the south point of Yakuno-sima W. by N., the ship struck soundings in eight fathoms, rocky bottom; the following cast no bottom at thirteen fathoms. To clear these dangers, the south point of Yakuno should not be brought westward of W. by N. until the high rock off the southeast point of Tanega bears N. $\frac{1}{4}$ W. This rock, which is about fifty or sixty feet high, and a conspicuous object when passing through the straits, appeared to be three to three and a half miles off the point. The ship Vincennes, of the United States North Pacific Surveying Expedition, rounded close to the southeast point of Tanega-sima, and saw no other rocks than the conspicuous one spoken of above, which was found to be only one mile off the point, and eighty feet in height, with some other rocks inside of it and to the northward. The currents in Colnett Straits were on both occasions found to be running four to five knots with W. and W.S.W. winds. Variation 2° 30' W., in 1866.
101	Soundings.....	30 12 00 N.	130 52 00 E.	.....	.....		

102	Island.....	30 00 00 N.	141 18 00 W.	.....	Whaler's report.....	No island is known thereabouts.
103	Island.....	30 00 00 N.	148 00 00 E.	.....	Whaler's report.....	No obstructions are marked thereabouts on any chart.
104	Island.....	30 00 00 N.	146 00 00 E.	.....	Whaler's report.....	
105	Island.....	30 00 00 N.	144 24 00 E.	.....	China Mail	
106	Island	30 00 00 N.	143 00 00 E.	.....	China Mail	Blunt's chart shows an island, marked doubtful, a few miles north of this position; it is not laid down on the British Admiralty chart.
107	Island.....	30 00 00 N.	141 32 00 E.	.....	Whaler's report.....	On both Blunt's and the British Admiralty charts, near this place, a group of islands is laid down, the position of which is marked doubtful.
108	Haycock	29 58 00 N.	137 50 00 E.	.....	Report cited by Admiral Krusenstern.	The British Admiralty chart has marked there an island as doubtful which Blunt's chart places in 141° 15' E.
109	Sail Rock.....	29 50 00 N.	142 23 00 E.	} 29 42 00 N. 140 20 00 E.	{ Capt. Meares, of ship Felice U. S. ship Macedonian..... Capt. Keyser, ship Undine..... Capt. Somerby, of ship Isabelita Hyne.	No dangers appear on any chart in this vicinity.
110	Sail Rock.....	29 47 00 N.	140 22 00 E.			
111	Rock.....	29 44 00 N.	140 22 00 E.			
112	Black Rock.	29 42 00 N.	140 15 00 E.			
113	Ormsby's Peak	29 41 00 N.	140 23 00 E.	} 29 41 00 N. 140 20 00 E.	{ Capt. Forbes, of ship Nile Capt. Ranlett, of ship Golden State.	(The rock, to which all these reports undoubtedly refer, was first seen by Meares in 1788, and to him, as to all the other authorities, it appeared like a ship under sail. In his determination of longitude, Captain Meares places it in 156° 00' E., evidently from dead reckoning. Throwing out, therefore, his longitude, and also the latitude of Capt. Ranlett, the mean of the other determinations will give the probable position. The U. S. ship Vincennes, of the North Pacific Surveying Expedition, passed very close to the rock, and made its height 299 feet by about 40 feet base; but its position could not be determined on account of bad weather. The British Admiralty chart has the rock placed in 29° 45' N., 140° 22' E.; Blunt's chart in 29° 40' N., 140° 15' E. The former chart has also a shoal laid down W.S.W. of it, distant 12 miles, the authority for which is not known.
114	Lot's Wife.....	29 27 00 N.	140 20 00 E.			
115	Island.....	29 36 00 N.	143 00 00 E.	.....	China Mail	Is given in Blunt's chart in the same position; the British Admiralty chart has the doubtful group of islands No. 106 laid down in this position.
116	Arabia Shoal.....	29 30 00 N.	155 55 00 W.	.....	Captain of ship Arabia, communicated by Prof. Bache, Supt. U. S. Coast Survey.	The Arabia sailed over a shoal with a large quantity of kelp fast to its bottom, and extending S.S.E. and N. N. W. two miles, by one mile in breadth. The lead gave eleven fathoms in several places. The British Admiralty chart has no notice of it, neither has Blunt any danger marked thereabouts, except Maria Laxara. (See No. 118.)
117	Rock in Shin-poo Harbor, China.	29 11 15 N.	121 58 30 E.	.....	Capt. Shadwell, of H. B. M. ship Sphinx. (Naut. Mag., 1854, p. 524.)	A small sunken rock, with ten or twelve feet over it at low water, between Tungmun and Sin Islands. Ships entering by this passage should keep well over toward the south shore to avoid this rock. The northern entrance, between Tungmun Island and the main, is safer. British Admiralty charts show the position of this rock.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
118	Philadelphia Island ..	0 4 00 N.	155 46 00 W.	0 4 00 N.	155 46 00 W.	Whaler report.....	Nothing is laid down there on the British Admiralty chart. Blunt's chart has, very close to this position, (29° 00' N.,) Maria Laxara, with an interrogatory.
119	Island.....	29 00 00 N.	175 42 00 W.	29 00 00 N.	175 42 00 W.	Whaler report.....	No island is shown on charts within 100 miles of this position.
120	Davis Rock, in San Moon Bay, China.	28 58 50 N.	122 01 00 E.	28 58 50 N.	122 01 00 E.	Capt. Davis, of Siamese brig He-roine. (Naut. Mag., 1851, p. 383.)	A rock, S.W. ½ S. from the Outer Twin, upon which the sea breaks occasionally when there is a heavy swell. The British Admiralty chart of San Moon Bay does not show it, but it is given in Collinson's chart of the eastern coast of China in the position as reported.
121	Island.....	28 50 00 N.	128 20 00 E.	28 47 30 N.	128 59 00 E.	Capt. Sullivan, of the Audax. (Naut. Ma., 1847, p. 497.)	Capt. Sullivan claims to have discovered a high island, not known heretofore, with a small island or rock two or three miles N.E. of it, and seventy fathoms all around. This description answers to Joko-sima or Cleopatra, 1,700 feet high, with Kaminone, 972 feet high, which are well established by the United States North Pacific Surveying Expedition in the position given as probable.
122	Constantine Rock, (Sandon or Macedonian.)	28 45 30 N.	129 44 52 E.	28 45 25 N.	129 45 00 E.	Capt. Tardy de Montravel, of the ship Constantine. (Ann. Hydr., XI, p. 363.)	The rock, described here as bearing N. 11° E. from the north point of Ou-sima, sixteen feet high, and visible seven miles, is the highest of the three Sandon Rocks, 36 feet high, whose position was established by the United States North Pacific Surveying Expedition. The latter's position and that by the British Admiralty agree minutely. Blunt's chart places the rocks differently, in 28° 28' N., 129° 20' E.
123	Rocks.....	28 44 00 N.	121 35 00 E.	28 44 00 N.	121 35 00 E.	Whaler report.....	Near the China coast; do not appear on any chart.
124	Island.....	28 42 00 N.	129 42 00 E.	28 42 00 N.	129 42 00 E.	Passed Midshipman R. S. Minor, U. S. N.	Probably the Sandon or Macedonian Rocks, (No. 122.) They were seen from a distance by Mr. Minor, and thought to be an island. It must be remarked here, that the entire chain of islands, which stretches from Japan down to Loo-Choo, is placed very erroneously in most charts. Kikai-sima is placed by the British Admiralty in 28° 35' N., 129° 42' E.; by Blunt, in 28° 15' N., 129° 30' E. The United States North Pacific Survey-

ing Expedition made a running survey of all this region in 1854 and 1855, connected trigonometrically and based upon many observations on shore. Charts of it were published in 1859, (of Japan two sheets, of the Loo-Choo Archipelago, of Loo-Choo Island, and the Amakarima group, &c.)

Not laid down on charts.

{ All these islands are doubtless identical with the group reported by Capt. Brooks, who describes them as three small islands or rocks, surrounded by a reef of thirty miles circumference, which opens to the southwest for about three miles, with a bank of twenty-five to thirty fathoms at the distance of two miles. Capt. Brooks says, the current runs north and south two knots, the tide rises two feet, and good water may be obtained on the largest island, which is three miles long and 1½ mile broad. Plenty of turtle may also be obtained. The best anchorage is found by bringing the northwest point of the breakers north, one mile from the reef, in from seven to twelve fathoms. The group is generally placed in 28° 25' N., 178° 24' W. }

Omitted in the British Admiralty chart, but given by Blunt in 176° 40' W. Capt. Patty, of the schooner Manuokawai, reports that he ran over the position without seeing anything.

Not laid down on charts.

This island is omitted on the British Admiralty chart. Blunt's chart notes it as questionable. Capt. Patty could not find anything thereabouts.

In 1853 Capt. Marsh reported, seven miles S. W. of Besattensima, or Bungalow Island, (which with Harbor Island are other names for Kikai-sima,) a reef extending N. N. E. and S. S. W. about three miles, with twelve feet at high water. Capt. Page reported the same, with one fathom on its shoalest part, 5½ miles W. S. W. from the southwest point of the island, the highest terrace of which bore from the spot N. E. ¼ E., and the north point of Ousima N. N. W. ¾ W., with another shoal spot two miles directly north of the centre of this reef, and apparently a clear passage between. The North Pacific Surveying Expedition found the southern reef to be only 4½ miles distant from the southern shore of the island, and placed it in 28° 13' N., 129° 53' E. The inner reef was not seen and is placed on the chart published by the Expedition from Capt. Page's bearings.

125	Island.....	28 35 00 N.	171 42 00 W.	.....	China Mail
126	Island.....	28 35 00 N.	178 42 00 W.	{	{ Alta Californian
127	Ocean Group.....	28 27 00 N.	178 23 00 W.		
128	Ocean Island	28 25 00 N.	178 42 00 W.		
129	Ocean Stavers, or Curé Island.	28 24 00 N.	178 24 00 W.		
130	Ocean Island	28 22 00 N.	178 30 00 W.		
					{ Captain Stanikiewitz, Russian navy, 1827.
					{ Whaler report.....
					{ Captain N. C. Brooks, of ship Gambia.
					{ Whale ship Parker.....
					{ (Naut. Mag., 1860, p. 503; Honolulu Friend, June, 1843; Findlay, II, p. 1152.)
131	Massachusetts Island.	28 30 00 N.	176 50 00 W.	.....	Whaler report.....
132	New Island.....	28 25 00 N.	133 00 00 W.	.....	Whaler report.....
133	Philadelphia Island ..	28 20 00 N.	172 30 00 W.	.....	Whaler report.....
134	Reef off Kikai-sima ..	28 19 00 N.	129 53 00 E.	28 13 00 N.	Capt. Marsh, of ship Jenny, and Capt. Page, of U. S. ship Germantown. (Merc. Mar. Mag., 1859, p. 283.)
				129 53 00 E.	

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
135 136	Sand Island..... Sand Island.....	28 10 00 N. 28 15 00 N.	177 22 00 W. 177 35 00 W.	0 ' "	0 ' "	Capt. Morrel, of ship Napoleon... Capt. Dagget of ship Oscar..... (Ann. Hydr. XVI, p. 508. Naut. Mag., 1860, p. 503. Honolulu Friend.)	The British Admiralty chart shows an island in 28° 10' N., 177° 12' W., and Blunt's chart places it in 28° 12' N., 176° 50' W. Over the latter position Capt. Brooks, of the American bark Gambia, reports to have run without finding any indication of land or danger. The editor of the Annales Hydrographiques thinks that Morrel's Island is identical with Ocean Island, (No. 128,) but Captain Dagget says distinctly that his island or reef is to the eastward of Ocean Island.
137	Meyer Rock, in Kemung Harbor.	28 03 20 N.	121 16 00 E.	.....	.....	Capt. Meyer, of bark Kingman... (Naut. Mag., 1861, p. 277.)	In the middle of the entrance to Kemung Harbor, only visible at low water spring tides. From this rock the east point of the rocks, which stretch from Quangtu Island, are reported to bear south, and the east point of Nampun Island S. W. This rock appears by these bearings on the British Admiralty chart.
138	Buckler Island.....	28 00 00 N.	178 00 00 W.	.....	.....	Whaler report.....	No island is laid down there; the reported island is evidently Ocean Island, (No. 128.)
139	Bunker Island.....	28 00 00 N.	173 20 00 W.	.....	.....	Whaler report.....	This island is laid down on some charts, but Capt. Patty, of the schooner Manuokawai, did not find it. Admiral Kotzebue placed it, as doubtful, in 172° 20' W.
140	Reef on the coast of Lower California.	27 52 00 N.	115 05 00 W.	.....	.....	Capt. Pierce, of bark Emerald.... (Pacific Commercial Advertiser. Ann. Hydr., XVI, p. 511.)	The Emerald touched on a reef between Natividad Island and Point Eugenie, one mile to the eastward of Seal Rock. This reef does not appear to have been properly surveyed.
141	Shoal.....	27 50 00 N.	176 32 00 W.	.....	.....	Capt. Brooks, of bark Gambia.... (Naut. Mag., 1860, p. 502.)	Reported 40 miles W. by N. from Pearl and Hermes Group, with 14 fathoms water over it; the bottom seen distinctly. This reef is not shown on the British Admiralty chart; it is shown on Blunt's chart as rocks above water.
142 143	Hennis Island..... Pearl, or Hennes Island.	27 46 00 N. 27 46 00 N.	175 00 00 W. 176 00 00 W.	..... .....	..... .....	China Mail Whaler report.	(The first explorer of this group, Capt. Morrell, describes it as a continuation of small islands, covered with sand and rock, forming a crescent, the concave side of which, facing

144	Pearl & Hermes Reef.	27 43 00 N.	175 48 00 W.	27 45 00 N.	175 48 00 W.	Capt. Patty, of schooner Manuokawai. Capt. Brooks, of bark Gambia...	W. S. W., encloses an extensive bay, with good anchorage, in from four to twenty-five fathoms. The group is said to be steep to on the east side, but to the west a bank of 35 fathoms running out to a considerable distance. Capt. Stanikowitch saw only a few islands, encircled by a reef. Capt. Patty gives six, and Capt. Brooks twelve islands inside of a reef of 50 miles in circumference, and open from the west, through which opening the largest island may be approached on a course E. by S. $\frac{1}{2}$ S. safely within two miles, in from five to fifteen fathoms. To the northwest, Capt. Brooks found a good outside anchorage in from eight to twelve fathoms. The tide runs north and south, two knots; rise and fall 24 inches. In charts the group is generally extended too greatly.
145	Pearl & Hermes Reef, east part.	27 41 00 N.	176 11 00 W.			Capt. Morrell.....	
146	Pearl & Hermes Reef, N. E. extremity.	27 49 00 N.	175 37 00 W.			Capt. Stanikowitch, Russ, navy.	
	Pearl & Hermes Reef, N. E. extremity.	27 48 00 N.	176 13 00 W.			Capt. Duperrey, French navy... (Naut. Mag., 1857, p. 606, and 1860, p. 502; Findley, II, p. 1151.)	
147	Shoal	27 40 00 N.	140 49 00 W.			Naut. Mag., 1864, p. 446.....	The editor of the Nautical Magazine suggests the examination of this reported danger, on which, perhaps, the U. S. sloop-of-war Levant may have been lost. Blunt's chart has a reef in 27° 20' N., 140° 50' W.; the British Admiralty chart has nothing nearer than the doubtful Maria Laxara, 27° 45' N., 139° 20' W.
148	Mararet Islands.....	27 30 00 N.	145 40 00 E.			Whaler report.....	These are doubtless the Margaret Islands, discovered in 1773, by Capt. Magee, and placed by him in 27° 20' N., 145° 45' E., where charts generally place them.
149	Reef	27 26 00 N.	174 25 00 W.			Capt. Hunt, of brig Delaware (San Francisco Herald.)	Described as dry; 12 or 14 miles long, with several other shoals in the neighborhood; it is marked on charts, but wants confirmation, as no one else appears to have reported it.
150	South Rowan Island .	27 04 00 N.	139 50 00 E.			Whaler report.	Not laid down on charts; the reporter probably saw Rosario Island, which the U. S. North Pacific Surveying Expedition places in 27° 15' 32" N., 140° 50' 28" E.
151	Shoal.....	26 58 00 N.	131 36 00 E.			Capt. Marsh, of ship Viscount Sandon. (Naut. Mag., 1851, p. 449.)	Capt. Marsh failed to find this shoal, which is marked doubtful in the British Admiralty chart. Blunt's chart has a shoal placed in 26° 32' N., 131° 28' E., which is probably intended for this.
152	Gaspar Rock.....	26 30 00 N.	131 00 00 W.			Whaler report.....	Not laid down on charts; the nearest danger shown is Cooper Island, by the British Admiralty (with an interrogatory,) placed in 25° 50' N., 131° 35' W.; by Blunt, (breakers,) in 25° 30' N., 133° 00' W.
153	Rock in Amoy Harbor.	26 28 00 N.	119 57 00 E.			Comd'r Vansittart, British Navy.. (Naut. Mag., 1855, p. 676.)	One mile north of Rag Island—is covered at high water. The British Admiralty chart shows this rock in 26° 27' N.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
154	New Island and Rock	0° 24' 00" N.	0° 54' 00" E.	0° 1' "	0° 1' "	Whaler report.....	Not laid down on charts; the nearest danger given by Blunt is the doubtful Lasans Rys Reef, in 25° 56' N., 173° 30' E.
155	Dangers in the entrance to the river Min, China.	26° 08' 30" N.	119° 38' 00" E.	.....	.....	Naut. Mag., 1865, p. 687; Merc. Mar. Mag., 1866, p. 18.	Mr. Shay, pilot for the river Min, states that since the survey of that river by Comdr. Richards, R. N., in 1854, new shoals have been formed at its entrance, and that the mark for large vessels to enter, High Sharp Peak, open southward of Sharp Island Peak, N. W. $\frac{3}{4}$ W., now leads into three fathoms water (the chart shows four fathoms) over a bar, which extends across from the South Breakers to the Outer Knoll; and that it also leads close to the southward of the south extremity of a shoal of seven feet water, which extends about S. W. by S. three-quarters of a mile from the Inner Knoll. Sharp Peak and High Sharp Peak in line lead into seven feet water (the chart shows two fathoms) over a bank extending from Rees Rock to Nine-feet Patch. The channel between the Inner Knoll and North Breakers is rapidly filling up with knolls of sand, and is not navigable. Where the chart has four fathoms there are now only two fathoms. Rees Rock is marked by a stone beacon, and a beacon has been placed on Middle Dog Island.
156	Shoal near Loo Choo.	26° 01' 00" N.	127° 31' 00" E.	26° 06' 00" N.	127° 30' 30" E.	Capt. Patterson, of the ship Heber.	Reports a shoal bearing from the southwest point of Loo Choo W. S. W., distant six or eight miles, one mile in extent, and with a rock five feet above water in its centre. This description answers to the Hall Breakers, well established by the United States North Pacific Surveying Expedition in 26° 06' N.
157	Bassiosus Island	26° 06' 00" N.	173° 27' 00" E.	.....	.....	Whaler report.....	Probably identical with the Laysan Rys or Laskar Reef, given about there in charts as doubtful.
158	Island.....	26° 06' 00" N.	154° 36' 00" E.	.....	.....	Whaler report.....	Not laid down on charts. The nearest danger, in British Admiralty charts, is the doubtful Sebastian Lobos Island, in 25° 36' N., 154° 00' E.
159	Group of islands.....	26° 06' 00" N.	146° 00' 00" E.	.....	.....	Whaler report.....	Not shown on charts; the nearest known dangers are the

Tree Islands, by British Admiralty and Blunt's charts placed in 26° 00' N., 145° 40' E.

Doubtless the same as the preceding.

Given in Blunt's chart as doubtful in the reported position. Probably 159, 160, and 161 are identical, and the reported positions are from loose dead reckoning; the middle position (145° 04') would then be nearest to the truth.

{ Not given by any other authority; perhaps identical with the Borodino or Grampus Islands, the northern one of which the United States North Pacific Surveying Expedition places in 25° 59' 30'' N., 131° 19' 30'' E., and the southern in 25° 52' 45'' N., 131° 12' 15'' E.

{ Captain Lisiansky discovered the island, which he named after himself, in 1805. According to his description, it is small and very low, of coral sand, overgrown with grass, with a reef making out one mile and a half E.S.E., on which his vessel struck. Captain Morrell gives larger dimensions, and says that the reef from the southwest end makes out seven miles. Capt. Patty makes the island one mile and a half long, with a lagoon on the southern part. Fresh water may be had by digging. Capt. Brooks says it is three miles long and two miles broad, with a reef surrounding it on the east and north side to the distance of half a mile, and on the west side of two miles and a half. He warns vessels coming for guano not to approach from the south, as a line of detached breakers makes off for many miles, on which several vessels were lost. The island should be approached from the north, and, by standing around to the west, it should be made to bear due east, when good anchorage may be found anywhere outside of the lagoon, in from ten to fourteen fathoms. In entering the lagoon on a line with the reef there are two very large breakers, about three-fourths of a mile apart, between which a vessel may pass in a channel about one-quarter of a mile wide, with four fathoms water. Just inside the reef Captain Brooks found twelve fathoms, gradually shoaling toward the land. A vessel may anchor within half a mile of the land, in four fathoms. There are rocks under water in the lagoon, which may easily be avoided by keeping a good lookout at the mast-head. Tide sets north and south two knots; the rise and fall is two feet. The probable position is the mean of all those reported, (Captain Pell's thrown out as evidently erroneous.) In this position the island is generally placed.

160	Three Islands	26 06 00 N.	145 04 00 E.	.....	Whaler report.....	
161	Group of islands.....	26 06 00 N.	143 44 00 E.	.....	Alta California.....	
162	Cooper Island	26 06 00 N.	132 10 00 E.	.....	Whaler report.....	
163	Copper Island	26 00 00 N.	131 48 00 E.	.....	Whaler report.....	
164	Sapron Island	26 02 00 N.	173 35 00 W.	.....	China Mail	
165	Pell's Island and Reef.	26 01 00 N.	174 51 00 W.	.....	Capt. Pell, of brig Delaware.....	
166	Lisiansky Island.....	26 02 48 N.	173 42 30 W.	.....	Capt. Lisianski, Russian navy....	
	Lisiansky Island.....	25 59 00 N.	173 44 00 W.	26 00 53 N. 173 47 00 W.	Capt. Morrell	
	Lisiansky Island.....	26 00 30 N.	173 57 00 W.		Capt. Patty, of the schooner Manuokawai.	
	Lisiansky Island.....	26 00 00 N.	173 57 00 W.		Capt. Brooks, of the bark Gambia. (Whaling reports in the Honolulu Friend; Findlay II, p. 1150; Nautical Magazine, 1857, p. 606, and 1860, p. 501.)	

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
167	Bank	26 00 00 N.	173 24 00 W.	25 43 00 N.	173 30 00 W.	{ Whaler report..... San Francisco Herald..... Capt. Pell, of the brig Delaware.. (China Mail and Honolulu Friend.)	{ The Delaware reports a bank extending northwest and southeast about 30 miles, apparently very shoal. Lieutenant Brooke, of the United States Surveying schooner Fenimore Cooper, found bottom at 15, 17, 18, 20, 25, and 40 fathoms, between the parallels of 25° 43' N. and 26° 03' N., and the meridians of 173° 29' W. and 173° 32' W. The Whaler's report confirms the statement of there being a bank in this position. The Delaware's reckoning being one degree too far west at Lisianski Island, the same was probably the case here, and then both banks would be identical. It appears to be a southwesterly extension of the bank around Lisiansky, which island the Cooper could not gain on account of stormy weather. In the report of the San Francisco Herald (islands seen in 1844) was most probably a misprint—islands for bank.
168	Islands	25 50 00 N.	174 26 00 W.	25 43 00 N. to			
	Bank	25 50 00 N.	174 26 00 W.	26 03 00 N.			
169	Recruit Island	26 08 00 N.	124 44 00 E.	25 54 00 N.	124 44 00 E.	{ Capt. Lyall, of the ship Recruit.. U. S. steamer Powhatan	{ With the exception of the two first, all these positions are given to the Raleigh Rock, which English charts, until lately, placed in 25° 57' N., 124° 06' 30" E., as computed approximately by Captain Belcher, who, according to the China Pilot, had been prevented by bad weather from fixing the position. Captain Lyall placed his discovery, which he estimates about one mile in extent and 600 feet high, from dead reckoning, and did not approach nearer than ten miles. The Powhatan gave no description. Captain Thatcher claims good observations, and says that the rock can be seen five leagues in clear weather, and that, bearing west four leagues, it had the appearance of two rocks; he did not see broken water, nor any signs of soundings, nor any place for landing, the rock being straight up and down on the northeast side, and bold to. Captain Crowdance obtained five sets of sights with bearings to the rock nearly all around the compass; he describes it as rising abruptly to ninety feet in height, with another smaller rock to the north. Capt. Pollock's positions are confirmed by Lieut. Brooke, who
170	Island	25 58 00 N.	124 48 00 E.				
171	Raleigh Rock	25 54 00 N.	124 45 00 E.				
	Raleigh Rock	25 51 00 N.	124 42 00 E.				
172	Raleigh Rock	25 57 00 N.	124 28 00 E.			{ Capt. Pollock, of the bark Emerald, in 1861. The same, in 1864. Lieut. Brooke, U. S. N.	
	Raleigh Rock	25 57 00 N.	124 31 00 E.	25 57 00 N.	124 29 00 E.		
	Raleigh Rock	25 57 00 N.	124 28 00 E.				

(Merc. Mar. Mag., 1861, p. 191; 1863, p. 61; and 1865, p. 316. Naut. Mag., 1864, p. 165. Ann. Hydr., XXV., p. 233.)

estimated the rock to be about 230 feet high, and saw breakers extending from it two miles and a half to the southwest. From this it would seem that there are two rocks, the probable position of which is the mean of the two sets—the Recruit Island being thrown out as entirely improbable. An island 600 feet high and 17 miles north of the rock in Crowdace's position, would undoubtedly have been seen by the latter, who passed to the north in fine weather. The latest edition of the British Admiralty chart places this rock in two positions—the old one in 124° 07' E., and another in 124° 41' E. French charts by Admiral Jurien de la Gravière place it in 124° 32' E. Recruit Island is laid down on the British Admiralty chart as doubtful.

Captain Patty, of the schooner Manuakawai, and Captain Brooks, of the bark Gambia, passed over the position given to Neva Island in Blunt's and other charts without finding any indication of land. The British Admiralty chart omits it.

Given by the British Admiralty and by Blunt's charts, with an interrogatory, about twenty miles W. N. W. of this position. Findlay thinks it is identical with Lisiansky Island, 26° 00' N., 173° 50' West, but the difference of latitude and the reported position of Basiosus Island (see No. 157) warrant the inference that about this parallel danger may also exist in this eastern longitude.

(All these authorities describe the island as low, covered with shrubs, and surrounded by a reef, at the distance of half a mile from the land, outside of which is a bank five miles wide, with from fourteen to nineteen fathoms of water over it. Lieut. Brooke and Captain Longbank make the island two miles long and one mile and a quarter broad. Capt. Brooks reports it to be three miles in length by two miles and a half in breadth, and says that a large lagoon is on it, with five fathoms water in the middle; he also states that there is a boat passage inside the reef nearly entirely around the island, and that the best anchorage is half a mile from the southwest point, in from eight to twelve fathoms water. Only a small quantity of guano was seen by him. Lieut. Brooke's position is thought to be the most correct, as he had excellent observations. Charts generally place the island a few miles to the eastward.

The British Admiralty chart shows this island 10' to the westward of the reported position, with an interrogatory. Blunt's chart has Cooper's Island (breakers) in 25° 30' N., 133° 00' W. The United States Exploring Expedition, Lieut. Wilkes, searched for the island without finding it.

Some charts. (Naut. Mag., 1857, p. 606, and 1860, p. 502.)

Whaler report.....

(Capt. Longbank, of bark Clara... Capt. Brooks, of bark Gambia... Lieut. Brooke, U. S. navy..... Capt. Stanikowitch, Russ. navy... (Naut. Mag., 1857, p. 606, and 1860, p. 500; Findlay's Directory, II, p. 1150.)

Whaler report. (Wilkes' Narr., V, p. 257.)

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
178	Passion Island.....	0 1 "	136 36 00 W.	0 1 "	0 1 "	Whaler report.....	Not laid down on charts.
179	Pollard's Island.....	25 48 00 N.	168 00 00 W.			Whaler report.....	Not reported by any other authority; it is probably Gardner's Island. Compare Nos. 189 and 525.
180	Maro's Reef	25 30 00 N.	167 48 00 W.			Whaler report.....	{ The discovery of this reef is conceded to Captain Allen. It does not rise to the surface, but is indicated by breakers, said to extend eight leagues in circumference, and to be visible about six miles. The first position (No. 180) is not supported by any other authority. Lieut. Brooke examined only the western side, and his position is that of the heaviest breakers at the northwest terminus. The direction of the reef appeared to him N. N. E. and S. S. W., extending about seven miles, with a bank of twenty fathoms water from two to seven miles off. The extension of the reef towards the east Lieut. Brooke could not ascertain. The mean of the four reliable reports would give the centre of the reef approximately. Findlay cites a position by Captain Stanikowitch, Russian navy, in 25° 46' N., 171° 49' East. This is most probably an error in printing; if not, it would establish another shoal, perhaps Lasans Rys Reef, (174.)
181	Allen's Breakers.....	25 30 00 N.	170 30 00 W.			Whaler report.....	
182	Maro's Reef	25 24 00 N.	170 20 00 W.			Capt. Allen, of whaler Maro.....	
	Maro's Reef	25 30 00 N.	170 31 00 W.	25 28 45 N.	170 30 00 W.	Capt. Brooks, of bark Gambia.....	
	Maro's Reef, north-west end.	25 31 00 N.	170 48 00 W.			Lieut. Brooke, U. S. N.....	
183	Drake's Island.....	25 30 00 N.	174 00 00 W.			(Naut. Mag., 1860, p. 500; Findlay, II, p. 1149.)	Not laid down on charts; it is probably Lisiansky Island, (No. 166.)
184	Reef.....	25 18 00 N.	121 35 00 E.	25 18 00 N.	121 35 00 E.	Whaler report.....	This reef, which makes out from the northern low point of Formosa to the distance of one mile, and encircles the coast to the westward, is now generally marked on charts.
185	Boxer Bank.....	25 16 00 N.	119 48 00 E.	25 16 00 N.	119 48 00 E.	Lieut. Gordon, British Navy. (Naut. Mag., 1847, p. 320.)	Breakers at the entrance of Hungwa Channel, China coast, with the east side of Reef Island bearing N. 9° E., and the west side N. 32° W. They are laid down on the latest British Admiralty charts.
186	Islands	25 10 00 N.	153 35 00 E.			Capt. Boxer, of H. B. M. ship Hesper. (Naut. Mag., 1863, p. 166.)	Not laid down on charts; the nearest dangers shown by the British Admiralty and Blunt's charts are a reef, by both, in 25° 28' N., 152° 40' E., besides, in the former, Sebastian Lobos Island, 25° 36' N., 154° 00' E.

{ Neither is laid down on charts; groups are also reported in about the same longitude, on the parallel of 26° 06' N. (See Nos. 159 and 161.) The reports appear to have been multiplied by errors in reprinting the original one; the existence of an unestablished danger thereabouts seems very probable.

{ The discoverer of this island (Capt. Allen, of the ship Maro,) describes it as one mile in extent and 900 feet high; but by the other concurring descriptions, it is merely an inaccessible rock, 170 feet high, with a base of about 600 feet, and a smaller rock close to the southwest extremity, from which a reef makes off about half a mile. A bank with from 17 to 20 fathoms water surrounds the rock, extending westward five miles, and southwest more than eight miles. Blunt's chart gives the position of the rock a few miles farther north than Lieut. Brooke.

A shoal running from Altata Point to Macapule Point, a distance of 20 leagues, with from six to four and a half fathoms water, breaking in some parts, and leaving a channel between it and the land, only deep enough for small coasters. This shoal is said to be well known to natives, but not yet surveyed; it is laid down on some late charts, but not well defined.

Capt. Patty, of the schooner Manukawai, ran over the location (according to Blunt's chart) of Polland Island without discovering any appearance of land.

The river Culiacan is about four miles wide at the entrance, off which there is an extensive bank projecting seaward four or five miles, where the sea usually breaks heavily. This bank leaves two entrances—the northern one about one-third of a mile wide, having two fathoms on its shoal-est part, the course through which is N. W. by N. (com-est part, the southern one only fit for boats, and with a heavy pass;) which is even dangerous for them. The latest English charts place the bank in 24° 40' N., 108° 00' W., but it does not appear to have been thoroughly surveyed.

A reef four miles east of Sulphur Island, one of the Volcano Group, which is not marked on any chart.

Nothing shown there on charts; it is most probably Gardner Island, (No. 189.)

There does not appear to be any reliable authority for reporting this island.

187	Group of Islands.....	25 06 00 N.	145 44 00 E.	.....	China Mail.....	
188	Group of Islands.....	25 06 00 N.	143 44 00 E.	.....	Alta California.....	
189	Gardner's Island.....	25 00 00 N.	167 42 00 W.	} 25 00 40 N.	{ Whaler report.....	
190	Gardner's Island.....	25 03 00 N.	168 01 30 W.			Capt. Stanikowitch, Russ. navy.
	Gardner's Island.....	25 00 40 N.	168 04 42 W.			Lieut. Brooke, U. S. N. (Comp. Findlay's Directory.)
191	Shoal on the Lower California coast.	24 50 00 N. 25 27 00 N.	108 06 00 W. 109 02 00 W.	.....	Capt. Richmond.....	
				.....	(Naut. Mag., 1859, p. 49.)	
192	Polland Island.....	24 50 00 N.	168 23 00 W.	.....	Some charts.....	
				.....	(Naut. Mag. 1857, p. 606.)	
193	Shoal off Culiacan river, Mexico.	24 50 00 N.	107 50 00 W.	.....	H. B. M. ship Calypso	
				.....	(Naut. Mag., 1853, p. 427.)	
194	Reef	24 48 00 N.	141 24 00 E.	.....	Capt. Lopez, of the whale ship Napoleon III.	
195	Island.....	24 40 00 N.	168 00 00 W.	.....	China Mail	
196	Small low island.....	24 33 00 N.	132 42 00 E.	.....	Brig Hannah Cheever.....	
				.....	(San Francisco Herald.)	

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
197	Island.....	0° 30' 00" N.	0° 13' 20" W.	0° 13' 20" W.	0° 13' 20" W.	Bark Dragon..... (San Francisco Herald.)	The existence of this island, which the captain of the Dragon describes as low, and visible 10 miles, seems to be sustained by other reports; Blunt's chart has Andrew's Island in the same position; the British Admiralty's chart does not show anything there.
198	Boxer Rock (Amoy Harbor.)	24 28 05 N.	118 02 36 E.	24 28 05 N.	118 02 36 E.	Capt. Boxer, of H. B. M. ship Hesper. (Naut. Mag., 1863, p. 166.)	A rock discovered by Capt. Boxer in the fairway of the western entrance into Amoy Harbor, with 12 feet water on it. From it Hanson Island bears N. 39° W., Kulangusen Island, northwest point, S. 21° W., north point, S. 11° E., Dock Island, S., 78° E., and nearly in line with the church. This appears to be the rock on the extreme end of Kellett Spit, shown there on the latest British Admiralty charts.
199	Island.....	24 29 00 N.	131 12 00 E.	24 26 00 N.	131 10 00 E.	{ Bark Aurora Capt. Norville, of the brig Argyle Spanish frigate Magellan..... Capt. Henry, of New Bedford... Capt. Kendrick..... (San Francisco Herald. Findlay. II, p. 1158)	{ The bark Aurora reports an island five miles long, north and south; the Argyle one, one mile in length, and covered with green bushes, with a reef projecting one mile from its northern side, and a rock to the east near the shore. Raza Island is described as small and low, covered with bushes, and surrounded by rocks, four or five miles long in a N. W. and S. E. direction. Kendrick Island is said to be low, and two leagues in length. These descriptions agree well, with the exception of the dimensions given by Capt. Norville. In all probability, therefore, these reports refer to one and the same island in the estimated position, (Capt. Kendrick's longitude being thrown out.) The British Admiralty chart places Raza, or Kendrick Island, in 24° 28' N., 130° 40' E.; Blunt's chart has Raza in 24° 33' N., 130° 25' E., and places Argyle Island in 24° 28' N., 131° 10' E., and a reef in 23° 50' N., 130° 50' E.
200	Argyle Island.....	24 23 00 N.	131 00 00 E.				
201	Raza Island.....	24 26 40 N.	130 40 00 E.				
202	Island.....	24 02 00 N.	131 12 00 E.				
203	Kendrick's Island.....	24 35 00 N.	134 00 00 E.				
204	Rosa Island.....	24 25 00 N.	138 56 00 E.	.....	.....	Whaler report.....	There does not appear to be any other authority for the existence of this island.
205	Kumi Shoal.....	24 25 00 N.	123 05 00 E.	24 24 00 N.	122 44 00 E.	Capt. Whittingham, of the ship Helen Stewart. (Naut. Mag., 1844, p. 214, and 1845, p. 86.)	A shoal extending E. by N. and W. by S. three miles, and bearing N. W. by W., distant about three or three and a half leagues from Kumi Island, with heavy breakers on the middle part, is given (with an interrogatory) by the latest British Admiralty charts, in 24° 24' N., 122° 44' E.

This island has been searched for repeatedly, among others, by Comd'r Glynn, of the U. S. sloop-of-war Preble, but no indication of it could be found.

Henderson's Island, which is laid down in the reported position on some charts, (among them Blunt's,) is omitted by many authorities. Henderson, or Elizabeth Island, is in $24^{\circ} 21'$ South latitude, and $128^{\circ} 19'$ W. longitude, which appears to have been, by a mistake, transplanted to the same parallel north. The British Admiralty has substituted south for north latitude.

Probably identical. Blunt's chart of the Pacific has a nameless island close to the position of Weeks Island. The Admiralty chart has Weeks Island, with a query, in $24^{\circ} 40'$ N., $155^{\circ} 00'$ E. Capt. Gillett says that the island is five miles long, covered with shrubs, and has a knoll in the centre, 200 feet high. A reef is said to extend northward.

The master of the Roebur reports in this position a group of rocks about 60 feet high, perpendicular on all sides, broken in two or three places; the ledge about 300 feet long. Half an hour after he lost sight of them he made Koumi Island. This danger is not laid down on charts.

Capt. Brooks, of the bark Gambia, passed over this position, (in which an island is placed on many charts,) but found none, although there was every indication of land in the vicinity. There is, also, according to Admiral Krusenstern, a reef reported in the vicinity, (in $24^{\circ} 14'$ N., $168^{\circ} 30'$ W.,) on which the "Two Brothers" was lost, and which is laid down on Blunt's chart as doubtful.

Is not laid down on charts, and can hardly exist so near the Sandwich Islands without being known.

The volcano, seen in eruption by Lieut. Boyle, was not seen by Captain Van Rees, of the Netherland ship Hecla, although he passed within a quarter of a mile of its reported position. Blunt's chart does not show it. It is marked on the British Admiralty chart.

No island given thereabouts, besides Marcus Island, (by the Admiralty chart in $24^{\circ} 15'$ N., $153^{\circ} 40'$ E.; by Blunt's chart in $24^{\circ} 22'$ N., $153^{\circ} 50'$ E.,) and an island by Blunt's chart in $24^{\circ} 05'$ N., $154^{\circ} 10'$ E. These are uncertain, but there is doubtless some land in this vicinity.

The Oriental passed within two cables' length of a round sand bank of three cables diameter, on which the sea broke violently. Her chronometer had been corrected by Agincourt Island. This danger is not marked on charts.

206	Ykima Island.....	24 23 00 N.	125 21 00 E.	French charts.....	This island has been searched for repeatedly, among others, by Comd'r Glynn, of the U. S. sloop-of-war Preble, but no indication of it could be found.
207	Henderson Island....	24 22 00 N.	128 36 00 W.	Naut. Mag., 1860, p. 588.....	Henderson's Island, which is laid down in the reported position on some charts, (among them Blunt's,) is omitted by many authorities. Henderson, or Elizabeth Island, is in $24^{\circ} 21'$ South latitude, and $128^{\circ} 19'$ W. longitude, which appears to have been, by a mistake, transplanted to the same parallel north. The British Admiralty has substituted south for north latitude.
208	Island.....	24 16 00 N.	155 07 00 E.	Whaler report.....	{ Probably identical. Blunt's chart of the Pacific has a nameless island close to the position of Weeks Island. The Admiralty chart has Weeks Island, with a query, in $24^{\circ} 40'$ N., $155^{\circ} 00'$ E. Capt. Gillett says that the island is five miles long, covered with shrubs, and has a knoll in the centre, 200 feet high. A reef is said to extend northward.
209	Weeks Island.....	24 04 00 N.	154 02 00 E.	Capt. Gillett, of the Miss. ship Morning Star. (Naut. Mag., 1865, p. 441.)	
210	Roebur Rocks	24 09 00 N.	122 23 00 E.	Ship Roebur..... (London and China Telegraph, 1865. Naut. Mag., 1865, p. 498. Ann. Hydr., XXVIII, p. 169.)	The master of the Roebur reports in this position a group of rocks about 60 feet high, perpendicular on all sides, broken in two or three places; the ledge about 300 feet long. Half an hour after he lost sight of them he made Koumi Island. This danger is not laid down on charts.
211	Island.....	24 06 00 N.	167 55 00 W.	Some charts..... (Naut. Mag., 1860, p. 500.)	Capt. Brooks, of the bark Gambia, passed over this position, (in which an island is placed on many charts,) but found none, although there was every indication of land in the vicinity. There is, also, according to Admiral Krusenstern, a reef reported in the vicinity, (in $24^{\circ} 14'$ N., $168^{\circ} 30'$ W.,) on which the "Two Brothers" was lost, and which is laid down on Blunt's chart as doubtful.
212	Pollard's Reef	24 04 00 N.	160 08 00 W.	Whaler report.....	Is not laid down on charts, and can hardly exist so near the Sandwich Islands without being known.
213	Volcano Island.....	24 00 00 N.	121 50 00 E.	Lieut. Boyle, U. S. N. (Nautical Magazine, 1864, p. 166.)	The volcano, seen in eruption by Lieut. Boyle, was not seen by Captain Van Rees, of the Netherland ship Hecla, although he passed within a quarter of a mile of its reported position. Blunt's chart does not show it. It is marked on the British Admiralty chart.
214	Islands	24 00 00 N.	153 40 00 E.	Whaler report.....	No island given thereabouts, besides Marcus Island, (by the Admiralty chart in $24^{\circ} 15'$ N., $153^{\circ} 40'$ E.; by Blunt's chart in $24^{\circ} 22'$ N., $153^{\circ} 50'$ E.,) and an island by Blunt's chart in $24^{\circ} 05'$ N., $154^{\circ} 10'$ E. These are uncertain, but there is doubtless some land in this vicinity.
215	Oriental Bank	23 58 54 N.	122 40 30 E.	Capt. Nedellec, of the bark Oriental. (Ann. Hydr., 1863, III, p. 234.)	The Oriental passed within two cables' length of a round sand bank of three cables diameter, on which the sea broke violently. Her chronometer had been corrected by Agincourt Island. This danger is not marked on charts.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
216	Bank	0 ' " 23 52 00 N.	0 ' " 166 46 00 W.	0 ' " 23 52 00 N.	0 ' " 166 55 00 W.	Capt. Brooks, of the bark Gambia. (Naut. Mag., 1860, p. 500.)	Captain Brooks, after running about thirty miles W.N.W. from French Frigate Shoal, crossed a bank with fourteen fathoms water and saw bottom distinctly. The correct longitude of the French Frigate Shoal (No. 219) would make the probable position of Captain Brooks' bank nine miles to the westward of the reported position. Charts place the main shoal still farther eastward.
217	Breakers	23 47 50 N.	120 02 30 E.	.....	.....	Capt. Richer, of the French ship Immaculate Conception. (Merc. Mar. Mag., 1865, p. 345; Naut. Mag., 1865, p. 613; Ann. Hydr., XXVIII, p. 414.)	A very extensive line of breakers, on which the sea breaks with great fury, is reported by Captain Richer in the middle of the passage between the Pescadores Islands and the west coast of Formosa. Some charts place a danger as doubtful, some distance from this position. The Formosa channel requires a more thorough examination.
218	Harp Island	23 45 00 N.	122 04 00 E.	.....	.....	Charts in general. (Naut. Mag., 1846, p. 2, and 1864, p. 166.)	The existence of an island in this position is contradicted by many. The surveying schooner Fenimore Cooper, in 1854, sailed over it; so did Captain Van Rees, of the Netherlands war steamer Hecla, in daylight, with a bright sky; also, H. B. M. ship Agincourt. Nevertheless, it has been retained on the charts.

(The discoverer of this reef (Admiral La Pérouse) found it to be a rocky bank, even with the water's edge, more than four leagues in extent, with an islet 120 feet high to the N. N. W., and three sand banks above water. Lieut. Brooke, of the United States surveying schooner Fenimore Cooper, spent four days in an examination of it, sailing all around and through the inner passages. The guano islet or rock, (120 feet high, 180 feet base,) with a small rock about 250 yards N. N. W. of it, he found in the centre of the reef, and five dry sand spits, the largest three-quarters of a mile long, from the centre islet bearing N. 76° E., (true,) four miles distant; the next, N. 45° E., six miles distant; then a very small one, N. 11° E., five miles; then one N. 8½° E., four miles and three-quarters, also very small; and, lastly, one of half

219	{ French Frigate Shoal	23 46 00 N.	166 14 00 W.	{ 23 46 50 N.	166 25 10 W.	{ Capt. Brooks, of bark Gambia... La Pérouse... Lieut. Brooke, U. S. N... (Naut. Mag., 1860, p. 500; Findlay, II, 1149.)
220	{ (rocky islet in the	23 45 00 N.	165 50 00 W.			
221	{ centre.)	23 46 50 N.	166 25 10 W.			
222	Shoal, about.....	23 45 00 N.	163 30 00 W.			Ship E. L. Frost. (Naut. Mag., 1859, p. 606; Ann. Hydr., XVI, p. 507.)
223	Deik's Island.....	23 42 00 N.	163 14 00 E.			Whaler report.....
224	Necker Island.....	23 35 00 N.	164 40 00 W.	{ 23 35 30 N.	164 49 50 W.	{ Capt. Brooks, of the bark Gambia. Lieut. Brooke, U. S. N..... (Naut. Mag., 1860, 499.)
225	Congress Island.....	23 30 00 N.	148 00 00 E.			Whaler report.....
226	Harp Island.....	23 30 00 N.	122 00 00 E.			Whaler report.....
227	Decker's Island.....	23 24 00 N.	163 05 00 W.			Whaler report.....
228	Hesper Rock.....	23 20 30 N.	117 07 00 E.			Capt. Boxer, H. B. M. ship Hesper. (Naut. Mag., 1863, p. 166.)

a mile diameter, N. 12° W., five miles distant from the centre rock. Besides these, heavy breakers were seen, N. W. † N., (true) six miles from the rock; then E. by S. † S. nine miles, S. E. by E. † E. five miles, and S. W. † S. five miles and a quarter from the rock. A passage was found nearly in a straight line from the southward of the northwest breakers, close by the central rock, (west of it,) to the southeast extremity of the reef, in from twelve to seventeen fathoms. Lieutenant Brooke's position (see column) of the central rock is from the mean of a number of excellent observations; the variation he made (1859) 9° 15' E. Captain Brooks, of the Gambia, says that he landed on sixteen small sand spits, which surround the rock. Both surveyors report good anchorage inside, in from five to fourteen fathoms—Lieut. Brooke, midway between the northwest breakers and the centre islet; Captain Brooks, inside of the E. S. E. spit. Charts heretofore generally adopted La Pérouse's position.

The Frost reports a shoal less than 100 miles W. N. W. from Bird Island with seventeen and twenty fathoms of water upon it, of coral bottom, and upwards of fifty miles in extent from north to south. Charts do not show it.

Not laid down on charts. Blunt's chart has a reef on the same parallel in 163° 45' E.

(Lieutenant Brooke's examination proves the island three-quarters of a mile long, west by north and east by south, and 340 yards broad, with two peaks, one at each longitudinal extremity, about 275 feet high, and a small island about 100 yards to the north, connected with the larger by a reef. He found from fifteen to eighteen fathoms water at two miles distance. Captain Patty, of the Maunakawai, could not find any landing place for boats, as the surf broke all around. Captain Brooks, of the Gambia, reports a shoal making off fifty miles to the southward, which he crossed as far as 23° 14' N. in fourteen fathoms. Charts place the island farther east.

Not laid down by Blunt's, but shown on the Admiralty chart near this position.

Another position for No. 218; no island is placed there.

Not shown by charts, and very improbable. In the same latitude and 163° 04' east longitude charts give Decker's Island as a doubtful one.

A rock with ten feet on it, Plat Island bearing S. 73° W., Dome Island N. 52° E., Three Chimney Bluff N. 12° E. is shown by the latest British Admiralty chart.

List of reported dangers to navigation in the Pacific Ocean.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
229	Rock.....	0° 20' 00" N.	0° 17' 05" 30 E.	0° 17' 00"	0° 17' 00"	Capt. Mackinow, of the ship <i>Ellen Rodgers</i> . (Naut. Mag., 1862, p. 348.)	The Rodgers struck on a rock with two fathoms on it at half tide, where nine fathoms were given on charts, the north end of Plat Island bearing W. S. W., and the west end of Oelste Rock S. $\frac{1}{2}$ E. It is perhaps identical with the preceding. The British Admiralty chart places it in this position, with an interrogatory.
230	Rock.....	23° 19' 20" N.	116° 48' 30" E.	.....	.....	Capt. Matches, of the ship <i>Ritson</i> , (Naut. Mag., 1859, p. 109.)	The Ritson, drawing thirteen feet, touched at half-tide in five fathoms over a rock when Cape of Good Hope bore S. $\frac{3}{4}$ W., Double Island W. by N. $\frac{1}{4}$ N., Pagoda N. by W. $\frac{1}{4}$ W., and Cone Island W. S. W. $\frac{1}{2}$ S. The latest British Admiralty charts indicate the existence of this rock. This danger may be identical with the next following.
231	Rock in the mouth of the Han River.	23° 18' 30" N.	116° 49' 20" E.	.....	.....	Capt. Stanley, of the British surveying ship <i>Dove</i> . (Ann. Hydr., XXVIII, p. 164.)	Rock with seven feet over it, with Double Island W. 14° N., distant five miles, and Green Island S. 28° W., distant four and a half miles. The northern summit of Kakchio Peninsula on with the south extremity of Double Island W. 5½° N., leads three-quarters of a mile to the northward of the danger. The south extremity of Sugarloaf Island W. by N., or the north extremity of Fisher's Island, just seen over the north extremity of Sugarloaf Island, leads three-quarters of a mile to the southward of it. The east extremity of Green Island on with the north part of the summit of High Cape, S. 40° W., leads one mile to the eastward. Finally, Brig Island, open its length to the eastward of Fort Island N. 31° E., leads three-quarters of a mile to the westward, in at least three fathoms at low water spring tides. The British Admiralty chart of the port of Swatow (corrected to 1866) shows this rock.

(There is probably less water on these banks than the charts represent. Captain Livingstone struck in the reported position, and carried away part of his keel. The depth he considers to be about fifteen feet, when high land bore E. $\frac{1}{2}$ S., about twenty miles distant. Captain Turner reports: "Dec. 27, 1861, at 5 p. m., dull, gloomy weather; observed the sea breaking in the direc-

232	Formosa Banks.....	23 19 00 N.	118 53 00 E.	.....	.....	Capt. Livingstone, of the ship Sea Star. (Naut. Mag., 1858, p. 54.)
	Formosa Banks.....	23 19 00 N.	118 52 00 E.	.....	.....	Capt. Turner, of the P. & O. Company's steamer Pekin. (Merc. Mar. Mag., 1866, p. 92.)
233	Bird Island.....	23 04 44 N.	162 08 00 W.	23 04 44 N.	162 08 00 W.	Lieut. Brooke, U. S. N.....
234	Island.....	23 03 00 N.	162 57 00 E.	.....	.....	Whaler report.....
235	Beloy Shoal (Formosa West Coast.)	23 02 00 N.	120 06 00 E.	.....	.....	Comd'r Brooks, of H. B. M. ship Inflexible. (Naut. Mag., 1858, p. 562.)
236	Massachusetts Island.	22 28 00 N.	177 05 00 E.	.....	.....	China Mail.....
237	Massachusetts Island.	22 28 00 N.	167 05 00 E.	.....	.....	Whaler report.....
238	Darker's Island.....	22 24 00 N.	163 05 00 E.	.....	.....	China Mail

tion of S. by E. $\frac{1}{2}$ E., and to all appearance like breakers, extending nearly a point northeast and southwest, and about five miles distant. As I had observed a long streak of discolored water on the starboard side shortly before, I kept a sharp lookout, knowing we were near the Formosa Bank. Not having obtained observations, I worked from noon of the preceding day, and made the danger to be in $23^{\circ} 19' N.$, $118^{\circ} 52' E.$ I feel confident that it is the same as that struck by the Sea Star in 1858. I warn vessels from approaching too closely at night during the northeast monsoon, as the breakers might be taken for phosphorescent water till too late to avoid the danger."

The United States surveying schooner Fenimore Cooper passed within a mile of this island and established its position by three good sets of sights. It was found to be half a mile long east and west, by a quarter of a mile in width, with a peak at each extremity, the eastern one of which was made out to be 534 feet high. Captain Patty, of the schooner Manuakawai, thinks landing practicable, although very difficult, at a small spur of sandy beach on the south side, where he also found a small drain of fresh water; he saw a few seal and plenty of birds. Anchorage is from one-quarter of a mile to two miles off the south side, in from seven to seventeen fathoms water. In charts this island is put down ten miles too far east.

Not found marked on any chart. (See No. 227.)

There is a shoal, about one mile off shore, between Kok-si-kon and Fort Zelandia, which is shown on some charts, but is still very little known. From the mast-head the sea was seen breaking heavily over it, a strong breeze blowing at the time; in calm weather it does not break. It bore from Joss Islet tree clumps N. E. by E. $\frac{1}{2}$ E., and from Fort Zelandia E. by S. $\frac{1}{4}$ S., and is about three-quarters of a mile in circumference. Vessels coming from the north, bound to Ape Hill, should not approach the shore within three miles, nor get in less than four and a half or five fathoms, until Fort Zelandia bears east, which will place them well to the southward of the shoal.

Shown on most charts, with an interrogatory.

Not marked on charts; it is probably intended for the above, and has been misplaced by a typographical error.

Decker's Island is shown, with an interrogatory, by Blunt's chart, about this position, but is not laid down on the British Admiralty charts.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
239	Lady Franklin Rock, in Macao Bay.	0° 11' 30" N.	0° 11' 30" E.	0° 11' 30" N.	0° 11' 30" E.	Ann. Hydr., XV., p. 11.	The port captain of Macao, José Maria de Fonseca, gives notice of a rock about 20 feet in diameter, elevated four feet above the mud at low water spring tides, 13½ feet below the water, with the following bearings: Kako Point S. 90° E. by compass; Tylot Island summit S. 56° E.; Lantao Peak N. 75° E.; Satchao Island N. 90° E.; Fort de la Guia, N. 54° W.; Church de la Penha, N. 71° W.; and Kaikiang Point, S. 48° W. English charts of as late a date as 1863 do not show this important danger, the reported position of which is deduced from the bearings.
240	Souder's Island	22 10 00 N.	175 42 00 W.			Whaler report	Is undoubtedly the Krusenstern Rock, discovered by Capt. Lisiansky, Russian Navy, and on charts generally placed in 22° 15' N., 175° 37' W. Pylstart Island, placed on Blunt's chart 20 miles to the northward, is perhaps identical with it.
241	Alceste Rock	22 10 00 N.	121 15 00 E.			Master Elliot, of H. B. M. ship Agincourt. (Naut. Mag., 1846, p. 2.)	This rock, which is generally shown on charts, was not seen by the Agincourt, although her noon position placed her exactly over it. With a heavy sea running at the time, no appearance of broken water could be perceived. The special chart of the Bashee channel, by the British Admiralty, omits this rock.
242	Reef	22 07 00 N.	142 24 00 E.			Whaler report	{ The British Admiralty chart shows nothing there. Blunt's chart places in this longitude one reef in 22° 25' N., and another in 22° 45' N.
243	Reef	22 05 00 N.	142 30 00 E.			Whaler report	
244	Shoal	22 00 00 N.	112 15 00 W.			Whaler report	Near this position Blunt's chart has Shovel Island, (22° 05' N., 112° 15' W.,) and the British Admiralty chart Shaler's Island, (21° 52' N., 113° 04' W.,)
245	Burrow's Island	22 00 00 N.	168 27 00 E.			China Mail	Not shown on charts.
246	Rock	21 45 00 N.	140 45 00 E.	{ 21 43 00 N.	{ 140 51 00 E.	{ Capt. of the ship Linda..... Capt. of the ship Euphrosyne ... Capt. Barras, of the ship Mary Ann.	{ This rock, according to Capt. Barras, (looking like a sail,) is proved to exist by the three corroborating reports. The British Admiralty chart shows it as "Euphrosyne Rocks," in 21° 43' N., 141° E. Blunt's chart does not show it, and nothing nearer to this position than the Three Islands, 21° 30' N., 141° 40' E.
	Rock	21 42 00 N.	140 55 00 E.				
	Rock	21 42 00 N.	140 53 00 E.				

247	Shoal near the Pratas	21 31 00 N.	117 07 00 E.	.....	.....	Capt. Hossack, of the ship Cyclone. (Naut. Mag., 1862, p. 109.)	Two shoal patches, the eastern one appearing to have only about two or three fathoms water over it, extending about 400 feet, and breaking N. N. E. from Pratas Island, distant 50 miles; are shown by the latest British Admiralty chart.
248	Island.....	21 30 00 N.	161 18 00 W.	.....	.....	Whaler report.....	Blunt's chart shows there the Papapa Rock, 200 feet high; instead of which the latest British Admiralty chart has Papapa Island, with an interrogatory. Dangers so near to the Sandwich Islands should be truly established.
249	Parce Island.....	21 12 00 N.	141 04 00 E.	.....	.....	Whaler report.....	The British Admiralty chart has nearest to this locality Peru Island, (21° 12' N., 141° 40' E.) with an interrogatory; Blunt's chart shows there the Three Islands in 21° 30' N., 141° 40' E.
250	Rock near the Pratas.	21 05 00 N.	116 40 00 E.	.....	.....	Capt. Avandon, of the ship Kulk. (North China Mail, Aug. 22.)	This rock, upon which the Kulk is said to have struck and been lost, appears not to be marked on charts. It is described as being about nine or ten feet below the surface at low water, of a pyramidal form, with deep water all around it.
251	Shoal.....	21 01 00 N.	122 10 00 E.	.....	.....	American brig Hannah Cheever. (San Francisco Herald.)	This shoal, said to extend 300 yards, would be very dangerous, on account of its vicinity to the Bashee channel. Its existence is not supported by any other authority, and it is not marked on charts.
252	Barney's Rock.....	21 00 00 N.	142 00 00 W.	.....	.....	Whaler report.....	Is not shown on charts.
253	Island.....	21 00 00 N.	149 30 00 W.	.....	.....	Whaler report.....	Not shown on charts; would be within 300 miles of the Sandwich Islands.
254	Island.....	21 00 00 N.	176 31 00 W.	.....	.....	Whaler report.....	Shown by Blunt's as well as by the British Admiralty chart; by the latter as doubtful.
255	Reef.....	20 54 00 N.	173 25 00 W.	.....	.....	Capt. Palmer, of the ship Kingfisher. (Honolulu Friend.)	With four feet of water on it, according to Capt. Palmer; is shown on Blunt's chart.
256	Marshall Island.....	20 50 00 N.	151 40 00 E.	.....	.....	Whaler report.....	Nothing is shown there on charts. The British Admiralty chart, as well as Blunt's, has Marshall Island in 21° 30' N., 151° 35' E., which may be identical with the Jardines of Blunt's chart, some miles to the N. W.
257	Reef.....	20 42 00 N.	155 00 00 E.	.....	.....	Whaler report.....	Not shown there; Blunt's chart has a reef in 20° 30' N., 153° 10' E.
258	Shoal or reef.....	20 37 00 N.	132 02 00 E.	.....	.....	Capt. Akin, of the ship Winthrop. (Honolulu Friend, March 2.)	Reported to be a mile long in a northeast and southwest direction, with but few breakers on it in fine weather. The British Admiralty charts show nothing there; Blunt's chart gives, 17 miles to the northward, Copper Island.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
259	Reef.....	0 ' " 20 30 00 N.	0 ' " 152 50 60 W.	0 ' "	0 ' "	Whaler report.....	Nothing shown by charts in this position ; probably western longitude has been misprinted for eastern. (See next No.—260.)
260	Reef.....	20 30 00 N.	152 50 00 E.	.....	.....	Whaler report	Blunt's chart, as well as the British Admiralty, shows about there a reef, the latter with an interrogatory.
261	Sandy bank	20 30 00 N.	152 30 00 E.	.....	.....	China Mail.....	Probably identical with the above; there seems certainly some danger in existence about this position.
262	Douglass Reef, or Pa- rece Vela.	20 31 00 N.	136 06 00 E.	} 20 30 00 N. 136 06 00 E.	}	{ Capt. Sproule, of the bark Maria Capt. ————— Capt. Douglass, 1789..... (Naut. Mag., 1848, p. 242; Merc. Mar. Mag., 1858, p.353; Findlay, II, p. 1157.)	These reports undoubtedly refer to one and the same reef, the discoverer of which (Capt. Douglass) describes it as being five miles in extent, west-northwest and east-south-east. Capt. ———— claims to have derived his position from very good observations, and says that there is a rock about four feet above water on the west end. Capt. Sproule examined the reef in a boat, and found it to consist of a narrow perpendicular wall of coral, enclosing an oblong lagoon of deep water. He rowed along its whole length, which he estimates two miles, by three-quarters of a mile in width at one-third distance from the eastern point. Sharp heads of pointed coral appeared frequently through the surf, and one isolated rock of about 12 feet in height and 15 feet base rose from the smooth water of the lagoon near its western extremity. A small channel, with only three feet, permitted the boat to enter the lagoon; on the wall was found three feet water; by backing two cables' lengths 17 fathoms; two lengths more no bottom with the whole line. The south side is nearly straight in an E. by S. $\frac{1}{2}$ S. and W. by N. $\frac{1}{4}$ N. direction. The rock, when seen from the ship, appeared exactly like a boat's tanned lug, which may have given occasion to the Spaniards for naming it Parece Vela. Findlay thinks that the reef, which, by some charts, (among them Blunt's,) is given 30 miles to the northeast, and that given 40 miles E. S. E. may be spurs of the middle one; but Capt. Sproule contradicts the existence of the latter shoal, (see No. 267,) and that of the former is also very questionable.
263	Douglass Reef, or Pa- rece Vela.	20 25 00 N.	136 02 00 E.				
264	Douglass Reef, or Pa- rece Vela.	20 37 00 N.	136 10 00 E.				

265	Farallone de Pajaros .	20 30 00 N.	145 12 00 E.	.....	Ann. Hydr., XXVIII, p. 279	In this position Blunt's chart of the North Pacific shows an islet of that name as the northernmost of the Mariane group, with a rock on the same meridian about eight miles to the southward. For both these the latest British Admiralty chart (corrected up to 1864) has only Guy Rock, in 20° 30' N., 145° 30' E., whilst Horsburgh's Directory, (II, p. 636) places Pajaros Islet in 22° 20' N., 145° 48' E., where both the above-named charts show an additional island. D. Eugenio Sanchez y Zayas, captain of the Spanish corvette Narvaez, reports that Farralone de Pajaros is an island (evidently near Blunt's position) as large as Aginguan, Sariguan, or Guguan, and that it has an active volcano of nearly the same height as that on Asuncion. The rock shown on Blunt's chart he did not see, nor the reef around the island, generally marked on charts. Instead of a danger, he calls the Farralone an excellent point of departure.
266	Copper Island.....	20 26 00 N.	130 54 00 W.	.....	Whaler report	Is placed by Blunt's and the British Admiralty chart in 20° 06' N., 131° 54' W. (See 270.)
267	Ledge of rocks.....	20 26 00 N.	105 38 00 W.	.....	Capt. Richmond (Naut. Mag., 1856, p. 49.)	This ledge, reported to be eight or twelve miles off Cape Corientes, (Lower California,) bearing from it W. S. W., with a clear channel inside, seems not yet established and is not marked on charts.
268	Island.....	20 22 00 N.	155 24 00 E.	.....	Whaler report	Nothing is shown there on charts.
269	Bishop, or Nautilus Reef.	20 15 00 N.	136 54 00 E.	.....	Capt. Bishop, of the ship Nautilus. (Naut. Mag., 1848, p. 242; Findlay, II, p. 1157.)	Capt. Sproule ran over this position, but could not find any indication of a reef, although looking out for it from the royal yard. Capt. Bishop most probably saw the Pareco Vela, (No. 262,) and misplaced them.
270	Cooper's Island.....	20 06 00 N.	131 54 00 W.	.....	Whaler report	Shown there on most charts; Capt. Wilkes, of the U. S. Exploring Expedition, did not find it.
271	Capper's Island.....	20 06 00 N.	131 54 00 E.	.....	China Mail	Blunt's chart gives Capper Island in 20° 20' N., 131° 58' E.; the British Admiralty chart has no island or danger there; the reports 266, 270, and 271 refer, most probably, to one and the same danger.
272	Heckford Patch.....	20 05 00 N.	92 40 00 E.	.....	Capt. Heckford..... (Naut. Mag., 1859, p. 219.)	A patch of rocks, S. W. $\frac{1}{2}$ W. from the Great Savage light-house at the entrance of Akyab river, coast of Pegu, distant 13 miles W. by S. $\frac{1}{2}$ S. from the table land of the Western Bolongo, and W. N. W. from the south extremity of that island, the light-house just visible above the horizon when on the shoal, which has only four and a quarter fathoms water on it, probably less, is in the direct track of vessels. There are 20 fathoms close to the westward and southward of it, 15 fathoms to the eastward, and 13 fathoms between it and the oyster reef, from which danger the patch bears S. S. E., nearly, distant 11 miles. This shoal seems not to be generally marked on charts.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
273	Bank.....	0 00 00 N. 20 00 00 N.	0 00 00 W. 167 40 00 W.	0 00 00 N. 20 00 00 N.	0 00 00 W. 167 40 00 W.	Whaler report.....	Blunt's chart places this bank 15' farther to the westward. The British Admiralty chart has, instead of it, Gardner's Island, in 168° 00' W.
274	Island.....	20 00 00 N.	179 48 00 W.	20 00 00 N.	179 48 00 W.	Whaler report.....	There is nothing shown near this position on any chart.
275	Island.....	19 46 00 N.	115 00 00 W.	19 46 00 N.	115 00 00 W.	China Mail	There are, on many charts, a number of islands placed among the Revilla Gigedo Group, off the western coast of Mexico, the existence of which is very doubtful. The principal of these doubtful dangers are Cloud Island, (in the opposite position,) Freshwater Island, 19° 20' N., 115° 10' W., Santa Rosa, 18° 40' N., 114° 00' W., Nublada, 18° 15' N., 114° 00' W., and Best Island, 18° 05' N., 114° 16' W. The positions assigned to Santa Rosa, Nublada, and Freshwater Islands were examined by Lieut. Catesby Ap R. Jones, U. S. N., and no indication of land was seen there. Lieut. Jones is of the opinion that all of them are erroneous positions of Clarion Island, which, from all these positions, was in sight. But the position of Clarion Island is not satisfactorily established. Blunt's chart places its centre in 18° 21' N., 114° 23' W., whilst Sir Edward Belcher determined Sulphur Bay, on its southern side, to be in 114° 40' 19' W., and Raper has it placed in 114° 38' W. A thorough survey of this group is needed.
276	Island.....	19 31 00 N.	168 35 00 E.	19 31 00 N.	168 35 00 E.	China Mail	Nothing is marked in this position on charts.
277	Island.....	19 31 00 N.	166 35 00 E.	19 31 00 N.	166 35 00 E.	Alta California	A reef is shown in this position by the British Admiralty and Blunt's charts; it is probably Wake Island. (See No. 284.)
278	Halcyon Island	19 30 00 N.	166 54 00 E.	19 30 00 N.	166 54 00 E.	Charts	The island which, under that name, is generally marked in addition to Wake Island on the parallel of 19° 30' N., and between 166° 30' E. and 166° 55' E., is in all probability Wake Island, erroneously placed. (See No. 284.)
279	Halcyon Island	19 30 00 N.	163 30 00 E.	19 30 00 N.	163 30 00 E.	Old reports. (Wilkes' Narrative, V, 268.)	In Blunt's chart Halcyon Island is shown near this position, with an interrogatory. The United States Exploring Expedition searched for fifty miles on each side of that place, but did not find any indication of land.

280	Mang's Islands.....	19 27 00 N.	145 15 00 E.	.....	Captain Sanchez y Zayas, of the Spanish corvette Narvaez. (Anales Hydr., XXVIII, p. 278; Horsburgh, II, p. 36.)	Mang's Islands, shown generally on charts fifteen miles S.S.W. of Asuncion, (and on some charts at an equal distance N.N.W. of it,) were not seen by Captain Zayas. Without doubt, they are identical with the Uracas Islands, (N. N. W. of Asuncion,) placed on the British Admiralty charts on the 20th parallel, and on Blunt's chart about seven miles farther north. A typographical error in La Pérouse's journal has probably created these islands. Horsburgh places the Mang's Islands in 19° 57' N., and calls the northernmost of them Uraca Island. The Uracas or Mang's Islands are evidently the remains of a sunken volcano. The bank shown by some charts around them does not exist.
281	Malcone's Island..... Malcone's Island.....	19 23 00 N. 19 20 00 N.	165 23 00 W. 165 25 00 W.	}	{ Old reports, and Wilkes' Narrative, V, p. 266.)	The flag-ship of the United States Exploring Expedition passed directly over the second position, and kept on the same parallel for seventy miles, in weather so clear as to render everything visible in a radius of fifteen miles. This island, therefore, might well be erased from those charts upon which it is marked.
282	Lindsay Rock	19 20 00 N.	141 15 30 E.	.....	Schooner Amelia. (Ann. Hydr., II, p. 11.)	Captain Lindsay, of the schooner Amelia, reports the discovery, in 1848, of a rocky islet forty feet high and four miles long, and says that he had corrected the error of his chronometer two days before at Grigan and Assumption. Most charts give a position to this island, but its true position is doubtful.
283	Freshwater Island ...	19 20 00 N.	115 10 00 W.	.....	Whaler report.....	See No. 275; notes.
284	Wake's Island..... Wake's Island.....	19 18 00 N. 19 10 54 N.	166 42 00 E. 166 31 30 E.	} 19 10 54 N. 166 31 30 E.	{ Capt. Sproule, of the bark Maria. U. S. Exploring Expedition (Naut. Mag., 1848, p. 251, and 1859, p. 285; Wilkes' Narr., V, p. 268.)	{ This danger is described by Lieut. Wilkes as a low island of triangular form, eight feet above the surface of the sea, covered by shrubs, with a small reef around it, and a lagoon in the centre. Appearances led to the conclusion that at times, with heavy westerly winds, it may be entirely submerged. The description of Captain Sproule agrees well with this; so that there is no doubt that his island is identical with that surveyed by Lieut. Wilkes. Captain Sproule passed this locality repeatedly above and below the parallel of Wake Island, and gives evidence that all those islands and reefs marked on the British Admiralty, Blunt's, and other charts, under the name of Wake, Halcyon, and Helsing islands, are one and the same. Captain Brown, of the missionary ship Morning Star, also searched for Halcyon Island without finding it. (See Nos. 277, 278, and 279.)
285	Wilson Island	19 17 00 N.	166 48 00 W.	.....	Arrowsmith's Chart. (Wilkes' Narr., V, p. 266.)	The flagship of the United States Exploring Expedition searched for this island unsuccessfully on the given parallel, sixty miles east and west of its supposed meridian. Blunt's chart exhibits it still.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
286	Reef.....	° ' " 19 16 00 N.	° ' " 165 42 00 E.	° ' "	° ' "	Whaler report.....	Compare No. 277. It is perhaps another erroneous position of Wake Island.
287	Volcano near Didicas Rocks.	° ' " 19 12 00 N.	° ' " 122 12 00 E.	.....	.....	Capt. Jennings, of the ship Contest. (Nautical Magazine, 1858, p. 334.)	The Contest reports (when passing Didicas Rocks, near the north end of Luzon) to have seen within fifty yards of them an island more than one mile in circumference and about two hundred feet high, on the north side of which, and about twenty feet above water, there was a large crater, out of which smoke, fire, and lava were pouring most furiously, and that in Manila nothing was known of this volcano. Horsburgh (II, p. 456) describes the Didicas as four sharp-pointed high rocks, with numerous smaller ones between them, stretching for two miles southeast and northwest, with deep water all around. The immense volcano on which Luzon is resting appears to find sometimes an outlet far to the northward. Lieut. Boyle, of the United States navy, saw, nearly three hundred miles distant from this position, a crater in action, which seems to have disappeared again. (See No. 213.) No further reports are known of the crater seen by Captain Jennings.
288	Shoal	° ' " 19 10 00 N.	° ' " 113 53 00 E.	.....	.....	Ship Singapore. (Naut. Mag., 1865, p. 688; Merc. Mar. Mag., 1866, p. 31.)	The commander of the Bremen steamer Singapore reports to have passed in this position over a rocky shoal, on which soundings were obtained in ten fathoms water. The position is from noon observations, and by three chronometers nearly agreeing. The weather was nearly calm at the time, and the vessel was about an hour and a half over the shoal, which was considered to be three miles in extent. H. B. M. ship Princess Royal passed three miles westward of the assigned position, but did not obtain soundings with leads going in both chains. The British Admiralty chart of the China sea, corrected to 1861, shows near there "no bottom" at 100 fathoms.
289	Island.....	° ' " 19 06 00 N.	° ' " 164 33 00 W.	.....	.....	Whaler report.....	Neither Blunt's nor the British Admiralty charts show any danger there.
290	Haystrous Island	° ' " 19 06 00 N.	° ' " 163 33 00 W.	.....	.....	Whaler report.....	Both Blunt's and the British Admiralty charts have an island marked in this position, with an interrogatory, which is probably identical with the preceding.

291	Morrel's Island	19 05 00 N.	179 05 00 E.	.....	Capt. Hedges.....	Charts place Morrel's or San Francisco Islands (two in number) generally in 19° 15' N., 179° 30' E.; the British Admiralty chart with an interrogatory.
292	Halverd's Islands	19 00 00 N.	165 30 00 E.	.....	Whaler report.....	Nothing seems to be shown in this position on any chart.
293	Wilson Island	19 00 00 N.	166 45 00 E.	.....	Whaler report. (Nautical Magazine, 1858, p. 380.)	The missionary ship Morning Star sailed over this position without seeing anything; undoubtedly, the reported island is another erroneous position of Wake Island.
294	Granger's Island.....	18 58 00 N.	146 14 00 E.	.....	China Mail	Not shown; is probably Grigan Island, in 18° 50' N., 145° 40' E.
295	Shaler's Island	18 29 00 N.	115 or 116 W.	.....	Whaler report.....	See notes to 275.
296	Shoal	18 26 00 N.	173 24 00 W.	.....	Whaler report.....	Nothing is shown there on charts.
297	Rock..... (about)	18 24 00 N.	108 54 00 E.	.....	Merc. Mar. Mag., 1860, p. 191	Some very dangerous rocks were seen in 1860 in Yaitchew Bay, on the south side of Hainan, bearing S. W. from the south point of the bay, about one mile off, covered at high water, which were not placed on charts at the time.
298	Folger's Island.....	18 21 00 N.	155 19 00 E.	.....	Wilkes' Narr., V, p. 268.....	The position of this island, as given by some charts, was passed over by the flag-ship of the United States Exploring Expedition.
299	Shoal	18 20 00 N.	170 30 00 W.	.....	Wilkes' Narr., V, p. 266.....	This shoal was searched for by Lieut. Wilkes sixty miles east and west of the locality assigned to it by some charts, (among them Blunt's,) but no indication of it was found.
300	Maurel's Island.....	18 17 00 N.	179 15 00 E.	.....	Capt. Sproule, of the bark Maria. (Naut. Mag., 1848, p. 241.)	Compare No. 291. In Capt. Sproule's chart Morrel's Islands were placed on the parallel of 18° 17'. Over this position he passed in broad daylight, but saw no land or reef; yet, from the number of birds, he feels confident that land was somewhere near. All these places are generally so very low that, even from the mast-head, they are not visible at any great distance.
301	Pagon Island	18 15 00 N.	145 50 00 E.	.....	Captain Sanchez y Zayas, of the Spanish corvette Narvaez. (Anales Hydr., XXVIII, p. 277.)	Captain Zayas reports the identity of this island, placed here by Freycinet, with that marked on charts next south of it. There are three islands in this part of the Mariane group—Pagan, Almaguan, and Guguan. The latest British Admiralty and Blunt's charts, misled by Freycinet, show four—Furallon de Torros in addition to the others. Pagon is the native name of the northernmost in this part of the group.
302	New Baldago Island..	18 15 00 N.	143 48 00 W.	.....	Whaler report.....	Seems not to be marked on any chart.
303	New Ballista Island..	18 14 00 N.	113 14 00 W.	.....	China Mail	{ All these reports would place new islands in the Revilla Gigedo group, which do not seem to be marked on any chart. They show the necessity of an organized survey there. (Compare No. 275.)
304	Island.....	18 11 00 N.	114 48 00 W.	.....	Whaler report.....	
305	New Ballista Island..	18 06 00 N.	113 48 00 W.	.....	Whaler report.....	

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
306	Florence Shoal	0° 18' 00" N.	143° 18' 00" E.	0° 18' 00" N.	143° 18' 00" E.	Captain Wadsworth, of the ship Florence. (Merc. Mar. Mag., 1862, p. 286.)	Captain Wadsworth reports to have passed over a shoal, two miles in extent, on which he got a cast of ten fathoms, coral bottom, but that he was off the bank before he could sound again; and that previous to sounding the ship had passed over some places much shoaler, probably not more than five or six fathoms. This bank is not marked on charts.
307	Santapillay Rocks ...	17° 59' 25" N.	83° 47' 37" E.	.....	.....	Nautical Magazine, 1847, p. 96.....	These rocks, ten and a half feet below the water, with seven and ten fathoms on their eastern and ten and a half fathoms on the western side, and showing no discoloration or sign with a smooth sea, reported to be distant from the coast five or six miles, the peak of Santapillay bearing N. 45° E., are placed by Raper in 83° 45', and by the British Admiralty chart in 83° 44' E.
308	Clare Reef	17° 50' 00" N.	124° 40' 00" E.	.....	.....	Capt. Ayer, of the ship Earl of Clare. (Hong Kong Register, 1848; Naut. Mag., 1848, p. 386.)	Captain Ayer discovered shoal water alongside, and saw bottom distinctly—large white shells and dark-colored rocks—about twenty yards distant from the ship. Immediately under the ship the bottom could not be seen, and the water was not discolored. The latest British Admiralty chart has Anson reef marked on the same meridian, in 17° 40' N. Blunt's chart shows no danger there.
309	Island.....	17° 35' 00" N.	136° 00' 00" W.	.....	.....	China Mail	This and other islands, reported by whaleships to exist between the parallels of 18½° and 16° N. and the meridians of 133° and 136° W., under the names of New Isle, Bocca-perde, Roca Coral, etc., have been searched for by Captain Trollope, of H. B. M. ship Rattlesnake, and Sir Edward Belcher, in the Sulphur, but could not be found, although many birds gave indication of land somewhere near. The British Admiralty chart shows Roca Coral in 17° 05' N., 136° 00' W., and 16° 18' N., 136° 10' W., with interrogatories.
310	Helson Island.....	17° 21' 00" N.	166° 55' 00" E.	.....	.....	Whaler report.....	Nothing is shown there on charts.
311	Reef	17° 12' 00" N.	156° 12' 00" E.	.....	.....	Whaler report.....	Shown on the British Admiralty chart, with an interrogatory; on Blunt's chart it is not shown.

312	Passion Rock	17 11 00 N.	108 21 00 W.	.....	Lieut. Woolridge, of H. B. M. ship Spy. (Naut. Mag., 1848, p. 64.)	Corrects the position of Passion Rock to 17° 11' N., 108° 21, W. Blunt's chart and Raper's Register place it in 16° 54' N., 109° 00' W. The latest British Admiralty chart omits the rock.
313	Reef	17 06 00 N.	156 14 00 W.	.....	Whaler report.....	Would be only about one hundred miles south of the Sand- wich Island group, and is not marked on charts.
314	Reef	17 06 00 N.	159 14 00 E.	.....	China Mail	Is generally marked, as doubtful, on the British Admiralty charts.
315	Island	17 00 00 N.	136 00 00 W.	.....	Whaler report.....	See No. 309; notes.
316	New Island.....	17 00 00 N.	136 00 00 E.	.....	Whaler report.....	The British Admiralty chart shows there an island, with an interrogatory. Blunt's has nothing in that position.
317	Island	16 55 00 N.	176 50 00 E.	.....	Ship Mary	Marked on Blunt's chart; it requires verification.
318	Zelandia Shoal	16 54 00 N.	145 51 00 E.	.....	Capt. Foster, of the ship Zelandia. (Naut. Mag., 1859, p. 443, and 1861, p. 567; Ann. Hydr., XXVIII, p. 281.)	Captain Foster saw in 1858 breakers to the northward of Sariguan, one of the Mariane group, which, when passing again in 1861, only a cable's length to the northward of them, he was better able to examine. They are two patches of black, pointed, and jagged-looking rocks, over which the sea broke furiously, and at times left them five or six feet dry. When abreast of the rocks the peak of Sariguan bore S. by W. $\frac{1}{2}$ W., from four to five leagues distant, Farallone de Torres N. $\frac{1}{2}$ W.; from each other they bore N. by E. and S. by W., about a quarter of a mile distant. The British Admiralty chart places them in 16° 50' N., 145° 52' E.; Blunt's chart does not show them. Capt. Eugenio Sanchez y Zayas, of the Spanish corvette Narvaez, confirms their existence near this position.
319	Cornwallis Island.....	16 51 00 N.	169 33 00 E.	.....	Wilkes' Narr., V., p. 267..... (Comp. Horsburgh, 6th edition, Vol. II, p. 817; and Naut. Mag., 1842, p. 793.)	This position, in which Cornwallis Island is put down on many charts, (Blunt's among them,) was passed over by Lieut. Wilkes without showing any indication of land. The reported existence of an island there originated from an erroneous position of the island No. 320 into eastern longitude by Horsburgh, who read, on page 793 of the Naut. Mag. for 1842, (his own citation,) east instead of west. The 8th edition of Horsburgh (II, p. 804) gives the the longitude correctly as 169° 33' 00'' W.

(From the concurrent descriptions, it is evident that all the positions (on page 44) refer to one and the same group, which was discovered in 1807 by Capt. Johnston, of the Cornwallis. Lieut. Brooke, of the U.S. surveying schooner Fenimore Cooper, landed there and obtained excellent equal altitudes. His position (that of a flag-staff erected on the east end of the western island by the Pacific Guano

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
320	Johnston, or Cornwallis Islands.	0° 53' 20" N.	169° 31' 30" W.	0° 1' "	0° 1' "	{ Capt. Johnston, of H. B. M. ship Cornwallis. Ship Seawitch..... Lieut. Knox, of the U. S. Exploring Expedition. Capt. Pendleton, of the ship Sarah Park. Lieut. Brooke, U. S. N. (Naut. Mag., 1860, p. 66; Wilkes' Narr. V, p. 271; Findlay, II, p. 1106.)	{ Company of San Francisco, which claims possession) is the preferable one. There are two islands—the smaller N. 55° E. (true) from the larger, one mile distant. The larger, with some vegetation, is one-half mile long; the other, a mere sand-bank, less than one-fourth of a mile in diameter. Breakers extend to the north nearly one and a half mile; to the west, the reef approaches the island within one mile; a bank surrounds the reef, extending in a southeast direction, five or six miles, with 10 to 15 fathoms water on it. In running for the anchorage, the flag-staff on the larger island should bear N. by W. $\frac{1}{2}$ W. The best anchorage is three-quarters of a mile S. S. E. from the huts under the flag-staff. Variation in 1859, 7 $\frac{1}{4}$ ° E. Blunt's chart places the group in the position of Capt. Johnston, and, in addition to it, a shoal in the position of the U. S. Exploring Expedition. This is believed to be an error.
321	Do.	16° 50' 00" N.	169° 32' 00" W.	{ 16° 44' 48" N.	169° 39' 35" W.		
322	Do.	16° 48' 00" N.	169° 45' 36" W.				
323	Do.	16° 46' 00" N.	169° 26' 00" W.				
324	Do.	16° 44' 48" N.	169° 39' 35" W.				
325	Reef	16° 49' 00" N.	160° 40' 00" W.			China Mail	Blunt's chart places this reef in the reported position; the British Admiralty chart shows it more to the southwest, with an interrogatory.
326	Reef	16° 36' 00" N.	169° 42' 00" E.			Whaler report	Nothing is shown there on charts, except, on Blunt's chart, the Cornwallis Island, No. 320; the reported reef is probably identical with this island.
327	Reef	16° 32' 00" N.	143° 22' 00" E.			Honolulu Friend	No danger is shown there on charts.
328	Island	16° 30' 00" N.	163° 34' 00" W.			Whaler report	Not marked on charts. (See next No.)
329	Shoal	16° 30' 00" N.	163° 54' 00" W.			China Mail	Marked on some charts; by the British Admiralty with an interrogatory.
330	Shoals	16° 30' 00" N.	118° 48' 00" E.	{		Comdr. Bate, of H. B. M. navy. (Naut. Mag., 1851, p. 1.)	On a Spanish chart of the Philippines of 1808, two banks are laid down about 30 leagues to the westward of Cape Bolina, for the alleged positions of which two ships, named St. Anna and St. Joaquin, are said to be responsible. Blunt's latest chart has them marked with one more, in the positions given opposite. Comdr. Bate passed over these positions, without getting bottom, with 120 fathoms line out.
331	Shoals	16° 30' 00" N.	118° 25' 00" E.				
332	Shoals	16° 10' 00" N.	118° 21' 00" E.				

333	Shoal.....	16 23 00 N.	84 51 00 E.	.....	.....	Capt. Higginson, of the ship <i>Vespasian</i> . (Merc. Mar. Mag., 1862, p. 61.)	Capt. Higginson states "that in July, 1861, at noon, was in 16° 01' N., 84° 51' E.; then made true north 23 miles, when shoal water appeared ahead, and had to alter the course three points to clear danger. Thought the shoal extended from southwest to northeast, about two miles, with various depths of water; saw seaweed and many turtle." The latest British Admiralty chart of Bengal Bay (1865) does not indicate danger there.
334	Truro Shoal.....	16 19 00 N.	116 41 00 E.	.....	.....	Capt. Duggin, of the ship <i>Truro</i> . (Naut. Mag., 1858, p. 166.)	Three successive casts of 10, 9, and 22 fathoms on white coral; bottom distinctly seen; then no bottom at 40 fathoms; no shoaler spot seen. The British Admiralty chart of the China Sea gives these casts.
335	Jane's Island.....	16 10 00 N.	173 15 00 W.	.....	.....	Wilkes' Narr., V, p. 266.....	The flag-ship of the U. S. Exploring Expedition passed within five miles of the position of this island, (for which Blunt's chart shows a reef with four fathoms,) but no danger was seen.
336	Shoal.....	16 02 28 N.	114 02 30 E.	.....	.....	Capt. Moses, of the ship <i>Bangkok</i> . (Merc. Mar. Mag, 1857, p. 202.)	Capt. Moses reports that in the given position on the Macclesfield Bank, he found himself shoaled into five and a half, five, and four and a half fathoms, deepening immediately after into 10, 12, 16, 20, and 30 fathoms—coral and sand; breakers were not seen. The British Admiralty chart of the China Sea shows there nothing less than 36 fathoms, and 10 fathoms 12 miles to the westward.
337	Cornwallis Island....	16 00 00 N.	171 36 00 W.	.....	.....	Whaler report.....	Nothing is given there on charts.
338	Island.....	16 00 00 N.	179 00 00 E.	.....	.....	Whaler report.....	Nothing is shown there on charts. The British Admiralty chart has Gasper Island, marked with an interrogatory, in 15° 00' N., 179° 00' E.
339	Island.....	16 00 00 N.	171 00 00 E.	.....	.....	Whaler report.....	{ Charts have in the latter place (340) an island (seen in 1832) as questionable. Lieut. Wilkes passed over the site, and explored 40 miles to the westward without finding any danger.
340	Island.....	16 00 00 N.	171 42 00 E.	.....	.....	Wilkes' Narr., V, p. 267.....	
341	St. Bartholomaeus Island.	15 25 00 N.	164 00 00 E.	.....	.....	Whaler report.....	{ Over the first position the missionary ship <i>Morning Star</i> , and the <i>Kingfisher</i> , Capt. Palmer, have sailed without finding any indication of danger. Blunt's and the British Admiralty charts place the island with an interrogatory; the latter in 15° 11' N., 164° E.
342	Do.....	15 11 00 N.	163 25 00 E.	.....	.....	Whaler report..... (Naut. Mag., 1858, p. 382.)	
343	Shoal.....	15 35 00 N.	97 35 00 E.	{	{	Annales Hydrographiques, XV, p. 10.	A merchantman reports two shoals S. W. of Cogoionk, on the coast of Tenasserim, with twenty-one feet water over them. They are not marked on late British Admiralty charts.
344	Shoal.....	15 15 00 N.	97 05 00 E.				

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
345	Gaspar Island.....	0 1 "	0 1 "	0 1 "	0 1 "	Whaler report..... China Mail..... Whaler report..... Whaler report..... (Wilkes' Narr., V, p. 267.)	{The flag-ship of the U. S. Exploring Expedition, in searching the different localities assigned to this island, ran upon the parallel of 15° N., from 175° W. to 174° 20' E., which satisfied the commander that no island exists between these meridians on or near that parallel. In the first position an island is still marked by many charts, but generally as doubtful.
346	Gaspar Island.....	15 00 00 N.	176 26 00 W.	.....	.....		
347	Gaspar Island.....	15 00 00 N.	179 18 00 E.	.....	.....		
348	Gaspar Island.....	15 00 00 N.	178 30 00 E.	.....	.....		
		15 00 00 N.	176 18 00 E.	.....	.....		
349	Farnham's Island.....	14 46 00 N.	169 18 00 E.	} 14 41 13 N.	168 48 30 E.	{Capt Underhill, of ship Bolivar... H. B. M. ship Cornwallis..... Adml. Kotzebue, Russ. navy.... Lieut. Brooke, U. S. N. (Findlay, II, p. 1106; Horsburgh, II, p. 804.)	{To this reef many names appear to have been given. Early Spanish charts place on this meridian, some miles further north, from one to five islands, under the name of Gaspar Rico. Capt. Johnston, in H. B. M. ship Cornwallis, passed (1807) to the northward of a group of islets and rocks extending 17 miles north-northwest, and south-southeast, the centre of which he placed as stated opposite; the entire group he called Smyth Islands, and named them singly, (the largest Sybilla, the southernmost Petrel; the others Fruitful, Danger, and Rabbit.) Admiral Kotzebue describes them similarly. Capt. Underhill saw an island, extending about six miles west-northwest and east-southeast, with a reef extending ten miles to the westward. Lieut. Brooke, of the U. S. surveying schooner Fenimore Cooper, (1859,) examined the western side of evidently the same danger. He found at the northern extremity some clumps of rocks partly above the water and partly awash, and to the southward a couple of sand-banks a few feet above the water, apparently separated from the northern rocks by a channel, the whole encircled by breakers, which do not run out very far, and leave a boat entrance into the middle channel. Instead of 17 miles, the group extends only 9 miles north-northwest and south-southeast; the eastern extent Lieut. Brooke could not ascertain. The reef to the westward is very bold; at a distance of one mile from the breakers bottom was just reached, by deep-sea sounding, at 1,000 fathoms. Blunt's chart, in addition to the group in 14° 42' N., and 169° 03' E., places another group of Cornwallis' Islands in 14° 42' N., 171° 05' E.; on what authority is not known. Lieut. Brooke's position is that of the main clump of rocks at the northwest extremity.
350	Smyth island.....	14 30 30 N.	168 42 15 E.				
351	Gaspar Rico.....	14 42 00 N.	169 03 30 E.				
352	Gaspar Rico.....	14 41 13 N.	168 48 30 E.				

353	Inhabited island	14 44 00 N.	170 36 00 W.	.....	Whaler report.....	Not an island; but a shoal is marked there on charts, with an interrogatory.
354	Group of small islands	14 25 00 N.	149 10 00 E.	.....	Capt. Kimball, (San Francisco Herald.)	This group, reported to have been seen in 1842, is without any other authority.
355	Stratheden Rock	14 25 30 N.	120 35 45 E.	14 25 30 N. 120 35 45 E.	Capt. J. W. Farren..... (Naut. Mag., 1854, p. 278.)	The ship Stratheden struck on a rock or shoal between the mainland of Luzon and the island of Corregidor, in the entrance to the Bay of Manila, and became a wreck. The position of the shoal is outside of the Punta de Caucaven, near the sounding No. 7, in a line of soundings 7, 25, 45 31, from the main up to Corregidor, on the Spanish chart of the Bay of Manila, published 1807, by the "direccion hidrografica." A Swedish vessel-of-war had struck there also some months before. The shoal is probably identical with the Fulton rock, given as a report in late British Admiralty charts.
356	Shoal	14 21 30 N.	120 39 30 E.	.....	Capt. Bial, of the ship Amherst. (Naut. Mag., 1846, p. 379.)	The report says that the ship Mermald, Captain Gill, got on a shoal which projects out from the southern side of the Island of Cavollo, in the entrance to the Bay of Manila, in a S. E. $\frac{1}{2}$ S. direction, about three-quarters of a mile in extent. Captain Bial, of the ship Amherst, also saw the shoal, and says it is not unlike a tongue. The British Admiralty chart of Manila Bay shows it as a report.
357	Shoal	13 52 00 N.	118 36 00 E.	.....	H. B. M. ship Vigilant. (Merc. Mar. Mag., 1864, p. 93 and p. 120; Ann. Hydr., XXV, p. 504.)	The Vigilant appeared to strike in this position, although no soundings were obtained with thirteen fathoms line one minute after, and no discoloration or ripples were seen. On examining the bottom of the ship in dock not the slightest mark was found, and then it was thought that the shock felt was occasioned by an earthquake. No danger is shown there on charts.
358	London Shoal	13 45 00 N.	80 20 00 E.	.....	Capt. Close, of the ship Ellenborough. (Naut. Mag., 1845, p. 269.)	Captain Close is confident of the existence of the London Shoal off Pt. Pouly, and between the Armagon and Pulicat Reefs, as he distinctly saw breakers there. The ship rounded to, to sound abreast of them, but the lead got fouled, and before it could be cleared she had drifted past. Captain Close thinks that the shoal is five miles off shore. It is not shown by late British Admiralty charts.
359	Island.....	13 09 00 N.	168 24 00 E.	.....	Whaler report.....	No island is found there on charts.
360	Montafur Shoal.....	13 07 00 N.	124 07 00 E.	.....	Master of the ship Manley. (Naut. Mag., 1847, p. 380.)	The reporter complains that this shoal, on which the ship Manley was wrecked, and which is said to be four miles from shore, is not shown by charts. The British Admiralty chart does not show it, nor is it mentioned in Horsburgh's Directory.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
361	Lempa Shoal.....	0° 13' 02" N.	88° 16' 00" W.	0° 13' 02" N.	88° 16' 00" W.	Capt. Dow, of Panama, and Naut. Mag., 1857, p. 564.	An extensive shoal, having only twelve feet of water over it, on which several vessels have struck, is reported to lie off the mouth of the Lempa River, about ten miles off shore, and directly in the track of vessels bound from La Union to Acapulco. The shoal is about three miles long, in a northeast and southwest direction, and from its centre the volcano of St. Miguel (6,790 feet high) bears N. N. E. The reporter thinks that this entire coast is placed eight miles too far north.
362	Island.....	13° 00' 00" N.	165° 40' 00" W.	.....	.....	Whaler report.....	No danger is shown there on charts.
363	Shoal	12° 53' 00" N.	162° 30' 00" E.	.....	.....	Merc. Mar. Mag., 1866, p. 92.....	An American whaler reports as follows: "In 120° 53' N., 162° 30' E., fifty miles southeast from the Pandereis Reef, there is no shoal set down on any chart. We found there one of white coral, with columns of red coral, the water varying from twelve to twenty fathoms when we sounded. We lowered a boat and sounded until we lost a lead. It extends from east to west, and is about three miles wide. The length we cannot tell, but it appeared to shoal more as it trended to the eastward." This danger between the Brown's group of the Ralick chain and the doubtful Bartholomaeus Island (see No. 341) is not marked on charts; neither is Pandereis Reef, nor any other reef to the north-west of it.
364	A reef near the coast of Siam.	12° 42' 16" N.	100° 47' 40" E.	.....	.....	Captain Alabaster. (Naut. Mag., 1863, p. 430.)	Called by the natives Kwai-wing-hai-Ngua, and corrected in position by Captain Alabaster.
365	Sombrero Rock.....	12° 41' 18" N.	100° 47' 40" E.	.....	.....	Captain Alabaster. (Naut. Mag., 1863, p. 430.)	Called by the natives Hin-Look-Khai, or Egg Rock, and corrected in position by Captain Alabaster.
366	Hunter's Shoal	12° 39' 00" N.	120° 14' 00" E.	.....	.....	Capt. R. L. Hunter. (Naut. Mag., 1859, p. 218.)	In 1842 a shoal with two and three-quarter fathoms, which had been discovered by Captain Hunter, was reported by Captain Blatchford, of the ship Merope, and generally placed on charts in 120° 43' N., 120° 18' E. In 1843 Capt. Hunter found another shoal, still more dangerous, with only nine feet of water over it. When at anchor near the Appo Islands he could see both of them distinctly. Instead of being placed five miles S. W. by W. of the

Merope Shoal, it was put between this and the Appo Islands. The letter of Captain Hunter, in the Nautical Magazine, 1859, is intended to correct this error; but if the direction (S. W. by W. from Merope) is correct, an error would exist in the British Admiralty charts, as they place Hunter Shoal S. W. by S., five miles distant from the Merope, instead of S. W. by W.

Said to lie on a line between Koh-Man-Klang and Tung-Kaben, about five miles from the latter; according to some authorities, visible at all states of the tide; by others covered at high tide; its position is not yet fixed.

Could not be found by Captain Alabaster, yet all the natives declare that it exists, and that it lies toward the western end of the straits, about midchannel. and their directions for avoiding it are: "If, on entering the Straits from the westward, you sight Koh-Plateen, stand over close to the mainland; if you do not sight Koh-Plateen, keep as near as possible to the island."

According to native pilots, a reef is jutting out some distance from the southeast corner of Kohkoi, but not of much consequence.

Consists of three reefs, which were examined by Captain Alabaster. Of the outer reef, the principal one, (the position of which is given opposite,) about sixty fathoms in extent, lies three feet exposed at low water. The middle reef, of which about forty fathoms length is bare at low tide, lies about three hundred fathoms inside of it, in a direct line between it and the shore. The inner one, which is rarely if ever exposed, lies about one hundred and fifty fathoms inside the second. The whole seems to be coral. The natives say that there is a channel for six feet draft between, but that it is tortuous and dangerous. The outer reef rises suddenly from five and four fathoms.

Lies directly opposite the mouth of the Chantaboun River, seven and a half miles distant from Cone Island, (Koh-Nam-Sao,) the true bearing of which is N. 5° W. It consists of two rocks, distant forty feet from each other, the largest one about fourteen feet long and five feet broad, at low water neap tides showing itself about three feet; at ordinary high tide covered by four feet water. These rocks rise perpendicularly from two fathoms; the passage between them has two and a quarter fathoms. For about two hundred feet all around there is rocky bottom, with soundings of four fathoms; outside of this is sand, the depth increasing to nine fathoms. Fishermen say that they can trace a line of rocky bottom, or, as they call it, a bridge, from thence to Cone Island. This is the only one of the dangers from No. 364 to 371 which is shown on charts.

367	Hin-Ai-Lorp Shoal...	12 35 25 N.	101 46 30 E.	.....	Captain Alabaster. 1863, p. 430.)	(Naut. Mag.,
368	Chong-Sarnit Reef...	12 34 30 N.	101 25 00 E.	.....	Captain Alabaster. 1863, p. 430.)	(Naut. Mag.,
369	Reef near Kohkoi....	12 34 25 N.	101 29 45 E.	.....	Captain Alabaster. 1863, p. 430.)	(Naut. Mag.,
370	Hin-Ai-Lao Shoal....	12 31 24 N.	101 54 25 E.	.....	Captain Alabaster. 1863, p. 430.)	(Naut. Mag.,
371	Alabaster Reef	12 20 36 N.	102 01 77 E.	.....	Captain Alabaster. 1863, p. 430.)	(Naut. Mag.,

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
372	Baxo-Calantes Shoal.	12 29 30 N. 0 1 "	124 05 00 E. 0 1 "	0 1 "	0 1 "	Capt. Guion, of the ship Aurelia. (Ann. Hydr., IV, p. 16.)	A dangerous bank, discovered by Captain Guion in the prolongation of the islets Ticlin, Juac, and Calentan, between Caput Island and the south point of Luzon. It is seven feet above water, two miles S. W. of Ticao, the northeast point of Ticao in range with the southwest point of Luzon. The British Admiralty chart of St. Bernardino Straits (1864) shows it.
373	Harmony Shoal.....	12 00 00 N.	113 49 00 E.	.....	.....	Comd'r Forindan, French Navy....	No danger is shown there on the British Admiralty chart of the China Sea.
374	Bank in Northumberland Straits.	11 56 00 N.	121 00 00 E.	11 56 00 N.	120 41 00 E.	Capt. Sproule, of the bark Maria. (Naut. Mag., 1848, p. 246.)	Captain Sproule suddenly saw coral rocks under the ship, and had casts of the lead as quick as they could be taken, in eight, seven, six, five and a half, then six, seven, twelve, and no bottom at thirty fathoms. The peak of Quiniluban was just visible from the deck, bearing S. by E., and the extremity of Coron Islands, S. W. by W. $\frac{1}{2}$ W., lat. 11° 56' N., long. 121° 00' E.; but this longitude is at variance with the bearings, which would make the longitude 120° 41'. This is much more probable, as from 121° 00' E. the Coron Islands could never have been seen. Capt. Sproule adds that the ship Lascar, Capt. Thompson, then in company with him a short distance to the southwest, had two casts of six fathoms, and that no shoaler water was found. The British Admiralty chart of the China Sea has no soundings either in the reported or probable position.
375	Albion Bank	11 57 00 N.	117 10 00 E.	.....	.....	Salem Gazette.....	This bank is not shown on any chart.
376	Shoal	11 52 00 N.	121 41 00 E.	11 51 00 N.	121 22 00 E.	N. Y. Herald, 1850. (Naut. Mag., 1845, pp. 101 and 153; and Horsburgh, II, 577.)	Nothing is marked there. It is probably the Panagatan Shoal, on which the ship Camden was lost—according to Captain Isaacson, in 11° 51' N., 121° 22' E.; by Raper and Horsburgh, in 11° 51' N., 121° 18' E.
377	Animosa Bank.....	11 52 00 N.	120 09 00 E.	.....	.....	Goelette Animosa. (Ann. Hydr., 1863, II, p. 471.)	A dangerous shoal, discovered by the Animosa, south of Basuanga, Point Calis bearing N. 62° W., and the centre of Dunai N. 84° E. It is not placed on the latest British Admiralty charts.

78	Bank near Masbat...	11 51 30 N.	123 17 05 E.	.....	.....	French sloop-of-war Circe. (Ann. Hydr., 1864, III, p. 199; Merc. Mar. Mag., 1865, p. 29.)	On this bank soundings were obtained from a boat in eight and a quarter fathoms, and at a distance of one cable to the northeast four and a half fathoms, with a continuous decrease in that direction. At the first cast the north point of Jintoto Island bore S. 89° W., and Point Palanduta N. 68° W., true. Variation 1° E. It is not placed on charts.
379	Shoal in Mindoro Sea.	11 50 00 N.	122 22 00 E.	.....	.....	N. Y. Herald, 1850.....	Charts place in 11° 52' N., 122° 20' E., Puntang Bank.
380	Emmanuel Reef	11 49 00 N.	101 19 00 E.	.....	.....	French ship Emmanuel. (Naut. Mag., 1863, p. 167.)	A reef of sunken rocks in the Gulf of Siam, extending thirty fathoms northeast and southwest, which is never uncovered, and always breaking near its southern end; is given as a report in the British Admiralty's chart of Siam, and requires confirmation.
381	Sandy Island	11 48 00 N.	121 45 00 E.	}	}	{ Captain Isaacson, of the ship Inglis. (Naut. Mag., 1845, p. 667, and 1848, p. 246.)	A low sandy islet, covered with trees, was seen in this position by Captains Isaacson and Sproule. It is probably the Manignin Island of the British Admiralty chart of St. Bernardino Straits, placed in 11° 37' N., 121° 45' E.
382		11 38 00 N.	121 45 00 E.				
383	Trident Bank	11 38 00 N.	114 40 00 E.	.....	.....	Capt. Lyall, of the bark Trident. (Singapore Free Press.)	Breakers extending two miles north-northwest and southeast (chronometer rated shortly before and after) are placed on the British Admiralty chart of the China Sea as a report, and require confirmation. (Compare No. 386.)
384	Bank.....(about)	11 35 00 N.	120 46 00 E.	.....	.....	Captain Scott, of the ship Areta. (Naut. Mag., 1864, p. 166.)	With the peak of the North Quiniluban S. by E. $\frac{3}{4}$ E., and the highest part of the Island of Monomoc S. by W. $\frac{1}{4}$ W., Captain Scott distinctly saw white and red coral under the ship, and sounded in nine, eight and a half, nine and ten fathoms, and then suddenly had no bottom at thirty fathoms. Apparently, the shoal extends a quarter of a mile east and west. English charts show a few miles to the westward of this position a cast of four and a half fathoms, and two casts of twenty-two fathoms to the eastward. Captain Scott adds that he noticed several suspicious patches of light-colored water near the Cujas group.
385	Coral Shoal..(about)	11 32 00 N.	121 20 00 E.	.....	.....	Ship Naples	A bank with nine fathoms over it, the north point of Panay bearing E. N. E. forty-one miles distant, and the south island of the Cayosi group south twenty-four miles. No indication of danger is shown there on charts.
386	Shoal	11 30 00 N.	114 46 00 E.	.....	.....	Ship Westward-ho, of Boston	The Master of this ship reports: "At daylight found the ship on soundings of eleven fathoms; hauled ship N. N. W., and found soundings for one mile varying from three to thirty fathoms; lowered a boat and sounded to the westward and southward one mile, and found the same soundings; should say the shoal extended east and west two miles, and north and south one and a half mile; least water three fathoms; black and white coral." This danger is not placed on charts, and may be identical with or an extension of Trident Bank. (See 383.)

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
387	Island.....	0 ' " 11 30 00 N.	0 ' " 163 58 00 W.	0 ' "	0 ' "	Naut. Mag., 1861, p. 219	The brig Josephine, searching for an island, which, in the opposite position, is given on most charts and by the British Admiralty's as doubtful, ran on the parallel of 11° 30' N. from 163° 27' W. to 164° 25' W., on a bright clear day, with good lookouts aloft, without seeing anything.
388	Carmen Bank	11 23 15 N.	121 36 00 E.	.....	.....	French sloop-of-war Carmen, and frigate Conception. (Annales Hydr., 1864, I, p. 504.)	This bank of coral, stated to be one and a half mile in circumference, with from five and a half to thirteen fathoms on it, is placed in the reported position on the latest British Admiralty charts as a report.
389	Bank.....(about)	11 21 00 N.	120 45 00 E.	.....	.....	Captain Chacon, of Span. Goelette Filomena. (Ann. Hydr., 1861, III, p. 189.)	A shoal with nineteen, twenty-one, twenty-seven, and thirty-three feet over it, of sand and stone, four miles S. 33° W. of Quiniluban; does not appear on any chart.
390	San Pedro Island	11 17 00 N.	179 00 00 W.	.....	.....	Wilkes' Narr., V, p. 271.....	This island, shown on most charts, was searched for by Lieut. Wilkes but not found.
391	Templar Bank	11 07 00 N.	117 21 00 E.	.....	.....	Ship Salsette. (China Mail, August, 1856, and Horsburgh, II, p. 404.)	This shoal, which the ship Minerva, Capt. Templar, reported in 1835 with from ten to seventeen fathoms water on it, seems to have been fallen in with again by the Salsette; but since no position nor depth is given by the Salsette, the report adds nothing more than greater probability.
392	Fanning's Island.....	11 06 00 N.	154 30 00 W.	.....	.....	Whaler report.....	Not found on charts.
393	Shoal	11 00 00 N.	109 04 00 E.	.....	.....	Salem Gazette.....	Not found on charts.
394	Manuel Rodriguez Reef.	11 00 00 N.	153 54 00 W.	.....	.....	Wilkes' Narr., IV, p. 263.....	This position of the Manuel Rodriguez reef was examined by Lieut. Ringgold, of the United States Exploring Expedition, in 1840, and no indications whatever of a danger were seen there. English charts place it further to the westward. The original position, by Admiral Espinosa, seems to have been in 141° 17' W., where no danger at all is now shown on charts.
395	D'Aprés Bank.....	11 00 00 N.	82 20 00 E.	.....	.....	Horsburgh, I, p. 583. (Annales Hydr., XXVII, p. 471.)	The northwest part of the bank, which, according to Horsburgh and British Admiralty charts, is said to lie to the eastward from D'Aprés, ten miles off shore, was crossed by Captain Tricault, of the French Navy, but bottom

could not be found with thirteen and a half fathoms, the ship going five knots; neither were any indications of a shoal observed.

{ The Captain says: "In 10° 54' N., 114° 28' E., made a sand-bank, four miles distant S. W., one mile in extent, covered with low bushes; breakers extending northeast and southwest one and a half mile. Eight miles S. W. of this passed a similar bank, and between them shoal water was seen from aloft. About ten miles S. W. from this another of the same size; and eight miles south from the last passed between two small bare sands, lying E. S. E. and W. N. W., four miles distant from each other." The British Admiralty chart of the China Sea shows the south island of Horsburgh 10° 44' N., 114° 26' E., a sand-bank five miles distant N. N. W., and foul ground extending from five to eight miles east and northeast. Evidently no proper survey has yet been made of this locality, and navigators are recommended to approach it cautiously.

Discolored water was seen for about one mile on each side of the ship, and soundings were obtained in fourteen fathoms, but probably there is much shoaler water to the westward. This shoal may be identical with the Pennsylvania North Reef, placed, with an interrogatory, on the British Admiralty chart in 10° 50' N., 116° 55' E.

One of the positions in which Farolip Island has been placed at random from the uncertain report of Torres, its discoverer, was examined by Lieut. Knox, of the United States Exploring Expedition, and no indication of land found there. The island shown in this position, in addition to the island in its proper place, on many charts, among them Blunt's, should be erased from them. The island, according to Admiral Lutke, of the Russian Navy, is situated in 8° 34' N., 144° 36' E., and is placed there on all charts, with the exception of Blunt's, which places it in 8° 55' N.

{ The ship John Wade, Captain Chamberlain, struck on a reef and was abandoned in 1859; the Bremen bark Condor, a year after, was lost on a sunken rock; and Capt. Ellis, of the ship Cowasjee Family, reports to have seen a wreck on a reef, bearing about S. by W., distant twenty miles from the Kusrovie Rock. The existence of the Condor Reef, therefore, is certain, and late English charts show it in the position given by the captain of the Condor. The bearing and distance of Capt. Ellis would place it three miles further north. Probably the Wade struck the same reef, and the difference of one degree in longitude may be an error.

396	Columbia Shoal.....	10 54 00 N.	114 28 00 E.	}	.....	{ Capt. Silsbee, of the ship Columbia. (Horsburgh, I, 404.)
397	Columbia Shoal.....	10 48 00 N.	114 21 00 E.			
398	Columbia Shoal.....	10 41 00 N.	114 12 00 E.			
399	Columbia Shoal.....	10 33 00 N.	114 12 00 E.			
400	Shoal	10 52 00 N.	116 25 00 E.	.....	.....	Capt. Ponsberry, of the ship Amy Douglas. (Naut. Mag., 1860, p. 386.)
401	Farolip Island	10 45 00 N.	146 27 00 E.	.....	.....	Wilkes' Narr., V, p. 271; Findlay, II, p. 1094.
402	Condor Reef.....	10 42 00 N.	102 48 00 E.	}	10 42 00 N. 102 48 00 E.	{ Ship Condor..... Ship John Wade..... (Merc. Mar. Mag., 1859, p. 252; 1860, p. 189; Naut. Mag., 1860, p. 386.)
403	Rock.....	10 40 00 N.	101 48 00 E.			

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
404	Holland Bank.....	10° 39' 17" N.	108° 43' 00" E.	10° 39' 17" N.	108° 43' 00" E.	Naut. Mag., 1863, p. 499; Horsburgh, II, p. 216.	This dangerous but well-known shoal of two and a half fathoms is mentioned here because it has been omitted in Blunt's general chart of the Pacific Ocean. Capt. Reid, of the British surveying ship Rifleman, in order to avoid it, recommends vessels passing north of it not to bring the southwest or high and sloping hill of Ceicer de Mer to the eastward of S. E., and those passing to the southward not to bring it to the southward of East.
405	Minerva Bank.....	10° 37' 30" N.	110° 18' 00" E.	.....	.....	Naut. Mag., 1863, p. 504; Horsburgh, II, p. 219.	Twenty-eight, thirty, and thirty-five fathoms were found by the ship Minerva eighty-one miles N. E. of Pulo Sapata. Captain Reid, of the British surveying ship Rifleman, could not find bottom in this position with two hundred fathoms.
406	High Rock	10° 37' 30" N.	108° 54' 00" E.	.....	.....	Naut. Mag., 1863, p. 501; Horsburgh, II, 216.	This danger is not shown on Blunt's general chart of the Pacific Ocean. It stands sixty feet high, N. W. $\frac{1}{2}$ N., nearly five miles distant from the northwest point of Pulo Ceicer de Mer, and has, half a cable to the north of it, a smaller rock, a few feet above water. In the channel between the Island and High Rock the depths vary from eight to twelve fathoms water, over coral bottom; but vessels should keep a good lookout, as some small patch may have escaped the lead.
407	Rock.....	10° 36' 00" N.	116° 09' 00" E.	.....	.....	Salem Gazette.....	No danger is placed there by other authorities. The nearest to this position are placed in 10° 52' N., 115° 57' E., (Thomas' shoal, reported 1839,) and 10° 29' N., 116° 34' E., (Brown's shoal, five fathoms, reported 1838,) both equally uncertain.
408	Fais Island	10° 30' 00" N.	143° 50' 00" E.	.....	.....	Wilkes' Narr., V, p. 271.....	This position was searched by Lieut. Knox, of the United States Exploring Expedition, but no land was found. Blunt's chart places the island there.
409	Asia Shoal.....	10° 30' 00" N.	118° 01' 00" E.	.....	.....	Ann. Hydr., 1861, II, p. 505.....	This shoal, on old charts called also Holmes' Bank, was seen (1835) two or three miles to the northward of the reported position, and passed within one mile in fine weather without any indication of danger being seen.

410	Alexander Shoal.....	10 28 00 N.	117 27 00 E.	.....	New York Herald	The Herald, without doubt, printed erroneously 117° 27' E. for 111° 27' E. (See next number.)
411	Alexander Rock.....	10 28 00 N.	111 27 00 E.	.....	Naut. Mag., 1853, p. 696, and 1863, p. 503.	This sunken rock, on which the ship Alexander is said to have been lost, has been searched for unsuccessfully. Capt. Reid, of the ship Rifleman, did not find bottom there with 500 fathoms line out.
412	Shoal..... or,	10 24 00 N. 10 20 00 N.	97 10 00 E. 97 10 00 E.	.....	Capt. N. Heckford, of the ship Ripsime Anna Maria. (Naut. Mag., 1849, p. 614, and 1859, p. 219.)	Rocks were seen under the vessel's bottom, and soundings obtained in 11, 13, and 18 fathoms; then 30, and no bottom at 50 fathoms, and there were indications of much less water. The shoal passed over appeared to extend east-southeast and west-northwest five miles. Good observations are claimed to have been had. The difference in latitude appears to be a typographical error; 10° 20' N. is probably correct. A local examination will have to determine whether this shoal is a new discovery, or whether it is identical with the bank discovered by Capt. Roe in 1822, and examined again in 1825, and placed in 10° 02' N., 96° 46' E. Eight and a half fathoms was the least water found by Capt. Roe. Charts now show two shoals. (See No. 437.)
413	Poltroon's Island.....	10 25 00 N.	164 38 00 W.	.....	Naut. Mag., 1861, p. 219.....	The master of the brig Josephine, in search of guano, was about this position for two days, and sailed on the parallel of 10° 25' N. from 163° 55' W. to 165° 20' W.; had good lookouts stationed, saw nothing but a few birds. This island is marked on the charts; the British Admiralty chart marks it as doubtful.
414	Beeby Island.....	10 22 00 N.	114 45 00 E.	.....	Capt. Beeby, of the British ship New Margaret.	A small, low, and flat island, which would be a southeasterly extension of the series of sand-banks and shoals reported by Capt. Silsbee. (See No. 396 to 399.)
415	Clipperton Rock.....	10 17 00 N.	109 10 00 W.	} 10 17 00 N. 109 10 00 W.	{ Capt. Belcher, British Navy..... Capt. Savage, of ship Harrison... Capt. Turnbull, of bark Elora... (Findlay, II, p. 1102; Salem newspapers, and Naut. Mag., 1851, p. 612.)	{ All these authorities complain of the designation given to this danger on most of the charts as calculated to mislead and endanger ships. It is a coral lagoon island, according to Belcher, of three, and by other authorities of six miles extent, very low, and without vegetation, with a high rock (by some 60, by others 200 feet high) on its southern edge, which might be mistaken for a sail. Blunt's chart marks the danger by a dot, named Clipperton Rock, ten miles too far north.
416	Clipperton Rock.....	10 20 00 N.	108 56 00 W.			
417	Clipperton Rock.....	10 16 00 N.	109 20 00 W.			
418	Kok Shoal, Cochinchina.	10 20 00 N.	107 40 00 E.	.....	Capt. Kok, of the schooner Valparaiso. (Naut. Mag., 1862, p. 386; 1866, p. 110.)	The ship struck on a sunken rock and was lost in the given position from which the following bearings were taken: Point Kego N. E. $\frac{1}{4}$ N., Cape Tiwan W. $\frac{1}{4}$ S., and Point Baker N. by W. $\frac{1}{4}$ W. The rock was then unknown. The ships d'Entrecasteaux, in 1863, and L'Echo and Fusee, in 1865, have searched for this shoal without finding it, and they report that it is the Britto Bank on which the Valparaiso struck.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
419	Bun Shoal.....	0 1 "	0 1 "	0 1 "	0 1 "	{ Capt. Hogg, of ship Kuramany... Capt. Reid, British Navy..... (Nautical Magazine, 1850, p. 123, and 1863, p. 502.)	{ Capt. Hogg discovered, in 1849, a rocky bank, the water on which he estimated at the greatest depth 1½ fathoms. The bearings which he gives (when Pulo Sapata bore S. S. E. ½ S., Ceicer N. N. W ½ N., the Catroicks S. S. W., the bank bore E. N. E ½ E.) agree with the position assigned to it by the English surveyor, Capt. Reid, who, however, reports four fathoms as the least water found, and which the British Admiralty charts adopt.
420	Yousun Shoal.....	10 17 00 N. 10 16 00 N.	108 57 00 E. 109 02 15 E.	10 16 00 N.	109 02 15 E.		
421	Flora Temple Shoal..	10 19 00 N.	113 34 00 E.	10 17 30 N.	113 27 00 E.	{ Capt. Johnston, of the ship Flora Temple. Officers of French ship Gironde.. (Merc. Mar. Mag., 1860.)	{ In 1859 the Flora Temple was lost on a sunken ledge of rocks, the position of which, by the captain of the vessel and that by the officers of the French ship which was sent to rescue the coolies on board, disagree considerably. Until better data are obtained, the mean should be taken. Probably it is the same danger which was previously marked as Western Reef, in 10° 15' N., 113° 41' E.
422	Flora Temple Shoal..	10 16 00 N.	113 20 00 E.				
423	Island.....	10 16 00 N.	172 55 00 E.	.....	.....	Whaler report.....	This is not found on the charts.
424	Sand Bank.....	10 15 00 N.	114 22 00 E.	10 16 00 N.	114 23 00 E.	{ Capt. Silsbee, of the ship Columbia. Capt. Eldad, of the ship Cacique. (Horsburgh, II, p. 404.)	{ In this position Capt. Silsbee (compare Nos. 396 to 399) saw a sand-bank with shoal water extending 1½ mile to the westward, and other shoal patches three or four miles distant, the bank about 25 feet above the water, and apparently steep to. This is probably the extensive reef reported by Capt. Eldad, and marked as questionable in the latest British Admiralty charts.
425	Reef.....	10 17 00 N.	114 24 00 E.				
426	Shoal.....	10 13 00 N.	118 27 00 E.	.....	.....	Capt. Gode, of the bark Leontine. (Merc. Mar. Mag., 1861, p. 122.)	Green water was observed with strong ripples, but not breakers, and soundings were obtained at 17, 25, and no bottom at 30 fathoms. The shoal is indicated on the British Admiralty chart of the China Sea.
427	Wastock Island.....	10 09 00 N.	152 19 00 W.	.....	.....	Whaler report.....	Although this island is marked on some charts, (by Blunt's as Watson's Island,) it probably does not exist. The British Admiralty chart shows Wastock Island in the same <i>southern</i> latitude, near the same meridian.
428	Island.....	10 06 00 N.	173 12 00 W.	.....	.....	Whaler report.....	No island is found there on charts.

429	Island.....	10 06 00 N.	178 00 00 W.	.....	Whaler report.....	This island is not shown on charts. Blunt's chart has a reef in 179° 25' W.
430	Kabahala Island.....	10 05 00 N.	166 45 00 E.	} 10 05 00 N.	{ Whaler report..... Capt. Schantz, Russian Navy..... (Nautical Magazine, 1859, p. 284; Findlay, II, p. 1069.)	{ Capt. Brown, of the missionary ship Morning Star, reports to have passed over both these localities without having seen any land, although sharp lookouts were kept aloft. Nevertheless Shantz Island is believed to exist, and to be identical with Kabahala. Capt. Shantz describes the group as consisting of thirteen islands, stretching north-west and southeast for twelve miles, by five miles in width. His longitude is derived from the mean of eight chronometers.
431	Schantz or Wattoo Island.	10 05 00 N.	166 04 00 E.			
432	Golconda Shoal.....	10 05 00 N.	121 47 00 E.	.....	Capt. Fraser, of the ship Lady Pell.	{ Capt. Fraser reports his shoal from hearsay, and does not give a description. Captain Wolfe saw both shoals, which he places, the one S. by W., two miles distant from the other; both only two cables in extent. His northern one and Fraser's Golconda shoal may be the same. (Compare Nos. 442 and 443.)
433	Shoal.....	10 02 00 N.	122 27 00 E.	.....	Capt. E. B. Wolfe.....	
434	Shoal.....	10 00 00 N.	122 26 45 E.	.....	Capt. E. B. Wolfe..... (Nautical Magazine, 1852 and 1853, p. 500.)	
435	Reefs.....	10 03 00 N.	85 43 00 W.	.....	Capt. Harvey, British Navy. (Nautical Magazine, 1860, p. 360.)	The deficiency of charts hereabouts is complained of. Captain Harvey says: "As it cleared up, numerous rocks and reefs, extending above a mile off the land, were discovered, on which the sea was breaking heavily. Observations made the chart twelve miles in error, on a most foul piece of coast; these were confirmed by angles and bearings at Cape Blanco. The coast line here is evidently borrowed from an old Spanish chart by Malespina, of former days. Captain Gizolme, of His Imperial Majesty's ship Embuscade, reports a greater error on the line of coast laid down south of Cape Blanco, in the vicinity of the Gulf of Dulce."
436	Shoals.....from	10 02 00 N. to 9 55 00 N.	118 21 00 E. to 117 55 00 E.	.....	Ship Cordelia..... (San Francisco Herald.)	According to the report, this shoal would stretch from the Middle Shoal, shown on the British Admiralty chart of the China sea with three and a-half fathoms, over the York Breakers, and beyond the one-hundred-fathom line off Pulawan. There is a number of shoal patches southwest of the York Breakers; but certainly not one continuous shoal between the given points. The charts show a passage of nearly ten miles in width, with not less than thirty-five fathoms water between the Middle Shoal and the York Breakers.
437	Roe's Bank.....	10 02 00 N.	96 42 00 E.	.....	(Nautical Magazine, 1859, pp. 218 and 381.)	Captain Heckford says that he has sounded upon and seen the rocks on Roe's Bank, (eight and a-half fathoms,) which had not been reported since 1825. This would seem to be sufficient evidence that the shoal which he claims to have discovered in this vicinity (No. 412) is not identical with Roe's.
438	Island.....	10 00 00 N.	180 00 00	.....	Whaler report.....	This is not found on the charts.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
439	Reef.....	0 1 " 10 00 00 N.	0 1 " 179 30 00 E.	0 1 "	0 1 "	Whaler report.....	Not found on charts; a questionable reef is generally marked in 179° 30' W.
440	Reef.....	10 00 00 N.	179 15 00 E.	.....	.....	Whaler report.....	This is not found on the charts.
441	Sand Bank.....	10 00 00 N.	114 18 00 E.	.....	.....	Capt. Silsbee, of the ship Columbia.	A small, bare bank, with shoal water, extending very far to the east and east-southeast. This is the last of the series of dangers reported by Capt. Silsbee. (See 396 to 399, and 424 and 425.) The British Admiralty chart of the China Sea has in this position the Cornwallis Reef, with an interrogatory.
442	Shoal.....	9 59 00 N.	121 41 00 E.	.....	.....	Salem Gazette.....	Probably identical with, or a branch of, the Golconda Shoal. (See 432.)
443	Shoal, (Sultana).....	9 58 45 N.	121 23 56 E.	.....	.....	Chief Mate Martindale and Capt. Wadge, of the Ship Sultana. (Naut. Mag., 1845, p. 668, and 1846, p. 44.)	The report of the chief mate, merely verbally repeated by Capt. Wadge, states: "Steering south with light winds, the water suddenly became discolored, and looking over the ship's side, I saw rock underneath; hauled up immediately S. S. W., and sounded in seven and ten fathoms, and immediately afterwards deepened to 'no bottom,' with fifty fathoms. We again steered south. A Hamburg vessel (the Flora) in company with us, standing south about three miles from us, suddenly tacked, the water under her lee having a shoal appearance; we also tacked to N. N. W. The cutter was then lowered to examine the shoal. Steering in an E. by S. $\frac{1}{2}$ S. direction, from no bottom at fifty fathoms, I got the following soundings: 11, 7, 5, 4, 3, 3, 3, and one cast at one and a half fathoms, (apparently the shoalest part.) I then steered E. by S., and had several casts at three fathoms; afterwards north, and got 3, 4, 5, 7, 10 fathoms, and immediately 'no bottom,' at fifty fathoms. All the soundings were on coral rock. This shoal, from aloft, appeared to extend many miles to the southward, and may even reach the Cayaganes Islands, which were just visible from the mizzen top, bearing S. by W. $\frac{1}{4}$ W. The seven-fathom spot hit by the ship we placed by observation in 9° 59' 30" N., 121° 23' 30" E.; the one-and-a-half-fathom spot sounded upon by the boat in 9° 58' 45" N., 121° 23' 56" E. The chronometer we found correct

at Batavia." If the latitude and the bearing to the Cayaganes are correct, then the latter would remove the shoal to about 121° 31' E. There is scarcely a probability of its identity with the Golconda, (No. 432,) or the shoal given just preceding. This entire region seems to be full of danger, and in a great measure unknown. English surveys in 1858 place the northernmost breakers, making out from the Cayaganes, in 9° 50' N., 121° 16' E.

This shoal, only lately established, is a small coral patch about a quarter of a mile in extent, with 2½ fathoms at low water, S. E. by E., 3½ miles from Pulo Sapata. Pyramid Rock, in line with the right extremity of Pulo Sapata, clears it to the northeast. Julia Shoal has been the cause of more anxiety, perhaps, than any other in the China Sea. No doubt many of the reported positions of dangers near that locality (for instance, the Hopkins Bank) have resulted from this shoal having been seen and its position wrongly estimated. The ship Christopher Rawson most probably was lost upon it. (See 447.)

Is probably another position for the Corsair Rock, generally placed in 108° 35' E., which has been frequently searched for but not found, the last time by Commander Reid, of the British surveying ship Rifleman. It is now left off of the British Admiralty charts.

This lagoon does not appear to be well established, if Captain James' latitude is not a clerical error. Raper's tables place it in 9° 31' N., 161° 08' E.; and Horsburgh places its centre in 9° 36' N., 161° 08' E., where it is generally found on charts. Captain James says that it has the form of an irregular parallelogram, extending east by south and west by north 12 miles, by 5 miles in width, and that there are on its reef 10 islands, the largest one on the east end. Two passages lead into the lagoon on the south shore, the best of which is about 5 miles from the east point.

Repeated efforts have been made to find the danger upon which, in 14 feet of water, the ship Christopher Rawson was lost. It is said to be from 15 to 20 miles E. S. E. from Pulo Sapata, but all searches there have proved fruitless. One of the crew of the Rawson, sailing afterwards with Captain Reid, of the British surveying ship Rifleman, stated to him, that although from the wreck they did not see land, shortly after they had taken to the boats an island was seen on the starboard quarter, about 4 or 5 miles off. From this circumstance, and considering that the accident occurred in the middle of the night, Captain Reid concludes that the vessel struck upon the Julia Shoal, (see 444,) only 3½ miles from Pulo Sapata. The Rawson shoal is now erased from the position in which it had been placed on English charts.

444	Julia Shoal.....	9 56 00 N.	109 09 00 E.	9 56 00 N.	109 09 00 E.	Naut. Mag., 1863, p. 502.....	
445	Shoal.....	9 54 00 N.	108 30 00 E.	.....	.....	Salem Gazette..... (Merc. Mar. Mag., 1863, p. 273, and Mag., 1863, p. 504.)	
446	Providence.....	9 52 00 N.	160 56 00 E.	.....	.....	Capt. James, of the missionary ship Morning Star. (Naut. Mag., 1864, p. 433; Hors- burgh, II, 803.)	
447	Christopher Rawson Shoal.	9 50 00 N.	109 26 00 E.	.....	.....	Naut. Mag., 1863, p. 502.....	

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
448	Shoal	9 48 00 N. ° ' "	108 21 00 E. ° ' "	9 40 00 N. ° ' "	108 14 00 E. ° ' "	Salem Gazette..... (Naut. Mag., 1863, p. 504.)	Most probably the Royal Bishop Bank, a coral patch, 3½ miles long west-northwest and east-southeast, 1½ mile broad, with 10 fathoms least water over it, and 28 to 30 fathoms all around; which is well established by Captain Reid in 9° 40' N., 108° 14' E.
449	Rock.....	9 47 00 N.	110 20 00 E.	.....	.....	Salem Gazette..... (Naut. Mag., 1853, p. 696, and 1863, p. 502.)	This is the Forth Rock, which is said to have been seen at 2 o'clock a. m. of a dark squally night, and which has never been found since, although diligently searched for by Capt. Crockett, of the steamer Clan-Alpine, by Capt. Reid, of the surveying steamer Rifleman, and by others. Capt. Reid, at the reported position, did not get bottom, with 500 fathoms line out.
450	Sultana Shoal.....	9 43 00 N.	121 44 00 E.	.....	.....	Capt. Fraser, of the ship Lady Peel. (Naut. Mag., 1853, p. 500.)	Reported from hearsay; and if intended to be the shoal which was discovered by the Sultana, (see 443,) is certainly an erroneous position for it. The Sultana could see the Cayaganes from the rigging, bearing S. by W. ¾ W., and in this position they would bear W. S. W.
451	Rock.....	9 39 00 N.	84 36 30 W.	.....	.....	Naut. Mag., 1857, p. 564, and 1860, p. 361.	In 1857 the discovery of a dangerous rock in the middle of Herradura Bay was reported, with the house on the beach bearing N. 40° E., and Caño pinnacle S. 34° W., nine-tenths of a mile distant. It is sometimes visible at low water, if much swell is on; but otherwise it would not be seen. The tide rises 9½ feet. The rock is cleared by keeping to the northward of a line drawn from the house on the beach to Caño pinnacle. In 1860 it was not marked on charts. Capt. Harvey, of H. B. M. ship Havana, claimed its discovery, and the latest British Admiralty charts of the Gulf of Nicoya show it.
452	Columbia Shoal.....	9 34 00 N.	110 33 00 E.	.....	.....	Naut. Mag., 1853, p. 696, and 1863, p. 503.	This shoal has been proven not to exist in its reported position. Capt. Reid sounded there with 350 fathoms line out without reaching bottom.

{ The Fiery-Cross struck near the northeast end of a reef, one mile in extent, northeast and southwest, with several small rocks or stones awash, and one about two or three feet above the surface at low water; when the ship struck no indication of a shoal was visible. The New Margaret saw an extensive shoal even with the water. Probably the two are identical; but danger is proven to exist hereabouts. In 1826 the ship Dhaulie discovered a shoal, and anchored on it at night. It was reported to be 1 or 2 miles in circumference, with 3 fathoms the least water over it, in 9° 35' N., 112° 22' E. (by dead reckoning from the preceding day.) This may also be the same shoal. The British Admiralty chart of the China Sea has the Fiery-Cross and Dhaulie shoals marked, "position doubtful;" but it does not show the Beeby Shoal.

This ship struck, and was lost, 4 to 6 miles south of Cagayanoillo. No shoal is marked in that position on the charts.

{ The Raglan reports to have passed over a rocky shoal, S. E. $\frac{1}{2}$ S., 39 miles distant from Pulo Sapata, and to have seen the rocks plainly under her bottom, as well as shoal water a short distance off; soundings were not tried. Ten years before this, a shoal in this locality had been reported by the Salem Gazette. A danger, or at least a bank of soundings thereabouts, is highly probable, notwithstanding the report of Capt. Reid, of the surveying steamer Rifleman, that the Lightning steamer had passed over these without finding any indication of such, and that he himself had sounded in the position given by the Raglan without reaching bottom at 300 fathoms.

A reef of lagoon form, trending northwest by north and southeast by south, about three miles, with a slight rise of a sand hill at its northwest end, and a ledge of rocks at the southeast extremity, and several detached rocks around. At a quarter of a mile from the southeast end, Captain Kirby tried soundings, but did not reach bottom with 100 fathoms line. The position is from observations; next day, when making "Thomas" first shoal, the chronometer agreed within two minutes arc. The British Admiralty chart of the China Sea carries over this locality a line of soundings with "no bottom" at 60 fathoms.

Not reported upon any other authority, nor is it shown on charts.

453	Fiery-Cross Shoal . . .	9 33 00 N.	112 47 00 E.	} 9 30 00 N.	112 46 00 E.	{ Ship Fiery-Cross Capt. Beeby, of the ship New Margaret. (Naut. Mag., 1860, p. 387; Horsburgh, II, p. 404.)
454	Beeby Shoal	9 26 00 N.	112 45 00 E.			
455	Shoal	9 29 00 N.	121 20 00 E.			Ship Cito, 1860 (Merc. Mar. Mag., 1861, p. 61.)
456	Raglan Shoal	9 28 00 N.	109 25 00 E.			Ship Lady Raglan Salem Gazette (Merc. Mar. Mag., 1859, p. 61, and Naut. Mag., 1863, p. 503.)
457	Shoal	9 26 00 N.	109 24 00 E.			
458	Alice Annie Shoal . . .	9 25 00 N.	115 19 30 E.			Capt. Kirby, of the ship Alice Annie. (Merc. Mar. Mag., 1865, p. 29.)
459	Mitchell's Island	9 18 00 N.	175 30 00 E.			Whaler report

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
460	Grimes Island.....	0 1 "	145 43 00 E.	0 1 "	0 1 "	{ Ship Jean (China mail)..... Capt. Vice, of the ship Chili..... San Francisco Herald..... (Ann. Hydr., XI, p. 530.)	{ Capt. Grimes, of the ship Jean, discovered in 1841 a high and well-wooded island of 6 miles circumference, which was seen again by Capt. Vice, (as his description is precisely the same.) It appears not to have been known at all before; it can scarcely be identical with the Faroillep group, as this consists of three islets in a lagoon, placed by Adm. Lutke some 65 miles to the southwest of the reported positions. Neither the British Admiralty nor Blunt's chart shows Grimes Island.
461	Do.....		145 11 00 E.				
462	High Island.....		145 45 00 E.				
463	Amazon Bank.....	.....	.....	.....	.....	Ship Amazone..... (Naut. Mag., 1861, p. 568.)	The master of the Amazone observed, April 20, 1861, at 7 a. m., a bank or shoal, which did not then appear to be more than 3 feet below the bottom of the ship. Unfortunately he does not state the exact locality; he only says that at noon on the same day he was in 9° 16' N., 107° 29' E.; no course or distance run between is given. The only bank shown within a great radius is the Royal Bishop, with 10 fathoms over it, in 9° 40' N., 108° 14' E.
464	Serpent Group.....	9 14 00 N.	166 02 00 E.	.....	.....	Capt. Hammond, of H. B. M. ship Serpent. (Naut. Mag., 1854, p. 62; 1858, p. 450; and 1862, p. 358 to 363; Horsburgh, II, p. 803; Findlay, II, p. 1069.)	Capt. Hammond saw a group of islands, surrounded by a reef, which consisted of a solid wall of coral, with 7 fathoms close to its edge and 20 fathoms a boat's length off; although on the lee side of it, a heavy surf was breaking all over the reef, through which the boat could not find a passage. Capt. Hammond says he had just come from the Catharine Islands, and therefore considers this to be a distinct group; and as it was not found on his chart, he named it the Serpent group; the position he gives is nearly that given by Horsburgh to Lydia Island, in 9° 04' N., 166° 02' E. Horsburgh derives his authority from the ship Ocean, which, besides Lydia Islands, gave two other groups—the Margaret Islands in 8° 52' N., 166° 10' E., and the Catharine Islands, 9° 14' N., 166° 50' E. Findlay thinks that these three groups are identical with three groups given by Admiral Kotzebue under the names of Kwadelen, Namon, and Lileb, but this would bring them more than a degree farther to the eastward. Blunt's and the British Admiralty charts show there the Mentchikoff group, (Anadelen or Ocean Islands of the British Admiralty,) extending in a northwest direction from 8° 45' N., 167° 50' E., to 9° 30' N., 167° E. Capt. Moore,

of the missionary ship Morning Star, made Dove Island in 8° 42' N., 167° 42' E., doubtless the southeasternmost of the group, and counted 17 islands while running 25 miles along the reef. This part of the Ralick chain appears to be greatly mixed up, from the discrepancies of the discoverers and traders; in fact, the entire Marshall Archipelago is placed on the charts mostly from such accounts, and requires an organized survey.

With White Islet bearing east, 1 mile distant, Mr. Turner observed a reef off the southwest end of Pulo Panjang of the size of a large ship, showing about 3 feet above water and distant 1 mile from the shore. In the latest British Admiralty charts this is indicated by a couple of crosses.

Discolored water was observed, and soundings were obtained in 18, 19½, 19½, 24, 30, 45 fathoms, and then no bottom at 115 fathoms—the least water supposed to be 4 or 5 fathoms. Most charts show this bank, but it requires further examination.

} Not laid down on the charts.

This position is the southern extremity of the position generally given to Dunkin's Reef, said to have been seen in 1824, which may be the Oroulug group mentioned by Capt. Lutke from hearsay.

Capt. Brown reports: "Sunday morning I was surprised to see land very near ahead, as none is shown on my charts at that place. Coming up with it, I found it to be a group of 14 islands, encircling three sides of a beautiful lagoon, the western part being protected by a reef with a small channel. The lagoon is about 4 miles across." A later report says that the group has 500 inhabitants in it. It is not laid down on the charts.

Capt. Pearson reports to have passed 3 miles to windward of an extensive shoal, about 2 miles long north and south, with some rocks above water on the south edge; he claims to have had good observations—15 days from port. The British Admiralty chart of the China Sea gives this danger merely as a report in 8° 58' N., 113° 42' E.

A sunken rock is reported 15 miles due north from the north point of Tillongchong Island, one of the Nicobars, which is not shown on charts, nor is it mentioned by Horsburgh

465	Reef.....	9 12 00 N.	103 30 00 E.	.....	Mr. Turner, master of H. B. M. ship Bittern. (Naut. Mag., 1853, p. 561.)
466	McLaughlin's Bank..	9 12 00 N.	148 06 00 E.	.....	Capt. McLaughlin, of the ship Gray Feather. (Ann. Hydr., VII, p. 18.)
467	Group of Islands.....	9 01 00 N.	164 40 00 E.	.....	Whaler report.....
468	Washington Island...	9 00 00 N.	126 00 00 W.	.....	Whaler report.....
469	Dunkin Island.....	9 00 00 N.	154 00 00 E.	.....	Whaler report.....
470	Lai or Brown Island..	9 00 00 N.	166 26 00 E.	.....	Capt. Brown, of the Missionary ship Morning Star. (Naut. Mag., 1859, p. 284.)
471	Pearson Rocks.....	8 56 00 N.	113 44 00 E.	.....	Capt. Pearson (Naut. Mag., 1844, p. 185.)
472	Rock.....	8 48 00 N.	93 36 00 E.	.....	N. Y. Herald, February 22, 1850..

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
473 474	Cyrus or Hadd's Reef. Rob Roy's Reef	0 ' "	0 ' "	0 ' "	0 ' "	{ Capt. Spratley, of the bark Cyrus. Ship Rob Roy..... Naut. Mag., 1840, p. 377; Hors- burgh, II, p. 405.)	{ The Cyrus came within 3 miles of a reef extending in a south-southeast and north-northwest direction about 4 miles, the western terminus of which could not be seen. It is level with the water's edge, shows large black rocks about the middle, and though the water was very smooth, it broke from one end to the other. The Rob Roy is said to have struck on a rock 9 leagues S.W. of West London Reef. The British Admiralty chart lays down the Rob Roy Reef as uncertain.
475	Island.....	8 40 00 N.	168 00 00 W.	.....	.....	Whaler report.....	No island is laid down there on charts.
476	Diana Shoal.....	8 40 00 N.	157 20 00 W.	.....	.....	Pacific papers (Naut. Mag., 1857, p. 663.)	Said to have been discovered by Capt. Fanning, who found there only 6 feet water. Few charts have this shoal on them. It is marked on the British Admiralty chart, but with the remark that the ship Herald passed over it without seeing anything.
477 478 479 480	Spratley Island..... Do..... Stormy Island..... Coral Island.....	8 40 00 N. 8 39 00 N. 8 38 00 N. 8 37 00 N.	111 56 00 E. 112 05 00 E. 111 50 00 E. 111 49 00 E.	} 8 38 30 N. } 111 55 00 E.		{ Capt. Spratley, of ship Cyrus Another account..... New York Herald Capt. Stavers, of ship Mermaid... (Naut. Mag., 1848, p. 563; Hors- burgh, II, p. 405.)	{ After having made the "Cyrus," or "Rob Roy" Shoal, Capt. Spratley discovered an island, apparently covered with small bushes, and of about the height of a ship's hull, with a black patch dividing the beach into two nearly equal parts to the water's edge. It appeared to be 1 mile in extent, with breakers on each extremity. The British Admiralty chart of the China Sea places Spratley Island in 8° 41' N., 111° 56' E., and, in addition, Stormy Island in 8° 33' N., 111° 50' E., probably by a typographical error of 8° 33' for 8° 38'. The Ruby Rock, shown on the same chart in 8° 40', 112° 05' E., is probably the Spratley Island. Horsburgh places Stormy Island as identical with Spratley's discovery, in 8° 40' N., 111° 56' E., and retains the Ruby spot in 8° 35' instead of 8° 40', as the British Admiralty chart has it. The Coral Island of Capt. Stavers is undoubtedly Spratley Island instead of the Rob Roy Shoal, as Horsburgh thinks.
81	Shoal	8 39 00 N.	111 36 00 E.	.....	.....	San Francisco Herald.....	Is most probably the Rob Roy or Cyrus Reef. (See No. 474.)

Capt. McClelland, of the ship
Gillies.
(Naut. Mag., 1848, p. 617; Ann.
Hydr., I, p. 12.)

{ Capt. Bird, of ship Glasgow.....
{ Capt. Baird, of ship Commodore.
(Merc. Mar. Mag., 1863, p. 125;
Ann. Hydr., 1864, III, p. 198;
Naut. Mag., 1863, p. 125, and
1865, p. 52.)

Capt. Shea, of the ship Bucking-
hamshire.
(Horsburgh, II, p. 406.)

Whaler report.....

It is possible that this reported island may be the Cyrus Reef. It was seen from a distance of 7 miles—the ship having run 78 miles after the p. m. observation—and it is described as low and quite sandy, from 8 to 10 feet above the water, which did not show breakers around, the sea being very smooth. The British Admiralty chart places the island in the reported position.

(The Mercantile Marine Magazine, in 1863, published a report by Capt. Hugh Baird, of the ship Commodore, as follows: "Monday, Dec. 22, 1862, 8 a.m.—Saw what I took to be the Viper Shoals or Sea Horse, the north end bearing by compass N. N. W., 3 miles distant. It seemed to extend over 3 miles northeast and southwest; partly dry sand and several rocks from 20 to 30 feet above the water—heavy breakers all around. At noon it bore W. by S., distant 6 miles, lat. 8° 22' N., long. by chro. 115° 31' E., placing the shoal 17 miles north of the British Admiralty's position." The Nautical Magazine of 1865 has the following: "According to a notice from Singapore, Capt. Bird, of the ship Glasgow, discovered a bank in 8° 39' N., 115° 31' E., which apparently extends 3 miles to its northeast edge, composed of sand and rocky peaks, in some places from 21 to 32 feet above the sea." The Annales Hydrographiques, in 1864, give the report of Capt. Baird, of the ship Glasgow, of a shoal in 8° 39' N., 113° 11' E., (from Paris,) 3 miles long on the northeast side, of sand and rocks, some of which are 20 to 30 feet above water; and adds that Capt. Baird thinks that this bank is the true position of Viper or Sea Horse Shoal. A careful comparison of these reports shows clearly that they refer to the same danger; that they are from one and the same person, who probably had changed command; that the great difference of latitude results from a typographical error, and that 8° 22' is the correct latitude. The reef is not marked on the British Admiralty chart, on which the nearest danger marked is a rock, seen in 1833 in 8° 31' N., 115° 16' E. (See next No.) The reported shoal can hardly be identical with the Viper Shoal, placed in 8° 00' N., 115° 25' E., since the small rocks seen there are said to be covered at high water. The existence, or at least the position of the Viper Shoal is questionable.

Two dry white banks, with a ridge of rocks extending to the westward about 2 miles. This report is probably the authority for the rock on the British Admiralty chart, just mentioned.

Not marked on charts; nor is any other authority for this group known.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
487	Jabwat or Island.	8 25 00 N. 0 1 "	168 17 00 E. 0 1 "	0 1 "	0 1 "	Admiral Kotzebue.....	This discovery of the brig Elisabeth in 1809 requires investigation. A few charts place a doubtful island there. Findlay confounds it with another extensive group, (Coquille,) discovered by the Elisabeth, more to the southward.
488	Hull Rock.....	8 24 00 N.	104 53 00 E.			Capt. McLean, of the ship Futtelhais. (Ann. Hydr., VII, p. 187.)	The reporter complains that the rock is placed only 2 miles distant from Great Pulo Oby, instead of 6 miles, bearing S. E. by E. $\frac{1}{2}$ E. from it.
489	Rogers Breakers.....	8 21 00 N.	116 25 00 E.			Capt. Rogers, of the steamer Formosa. (Naut. Mag., 1858, p. 213.)	Heavy breakers were seen every three or four minutes, 2 or 3 miles distant from the ship; broken water, about 10 yards in extent north and south, was apparently caused by a rock a few feet under water. Soundings were occasionally tried for with 100 fathoms line without reaching bottom. The position is only approximate. In the British Admiralty chart of Palawan (corrected to 1865) this danger is indicated as probably doubtful, but it is not shown in the chart of the China Sea (four sheets) of 1864.
490	Small Island	8 20 00 N.	167 46 00 E.	}	}	{ Capt. Dunn, of the bark Dragon. Capt. Moore, of the missionary ship Morning Star. Capt. Dennet, of the ship Britania. (Baltimore Sun of 1856; Naut. Mag., 1858, p. 168; Findlay, II, p. 1070.)	{ Capt. Dunn came within 5 miles of a small sand island with low bushes, 6 miles in circumference, inhabited, and surrounded by a coral reef one mile from the shore. Capt. Moore landed upon an island $1\frac{1}{2}$ mile in circumference, and found it inhabited by 23 people; covered with a thick growth of pandanus, among them a few coconut trees. He also says that a dangerous shoal runs off southeast a great distance. Capt. Dennet does not give a description. Notwithstanding the discrepancy in the reported size, these islands may be identical. They are not shown by the British Admiralty chart nor by Blunt's.
491	New Island	8 15 00 N.	167 25 00 E.				
492	Princessa Island.....	8 20 00 N.	167 30 00 E.				
							{ The English ship Madras was lost on the western edge of a bank of rocks in the reported position, which is said to extend north-northeast 10 miles, with some rocky peaks, standing 9 feet above the water. The crew took to the

boats and crossed on its way the position of the Stag Rocks without seeing any of them. The Depot de la Marine of France, from which the notice is copied, considers therefore that this supposed danger and that reported by the Lizzie Webber are no other than the Madras Bank. To arrive at a probable conclusion, the above report should be compared with the authorities for the Stag and Lizzie Webber Shoals. Horsburgh says: "Stag's Shoal, north end, in $8^{\circ} 24' N.$, $112^{\circ} 57' E.$, was seen by the brig Amboina, Capt. Trinder, 1802; no soundings were obtained at 80 fathoms within a quarter of a mile of the north end of the shoal, which extended southeast and south-southwest in form of a triangle, with rocks above water and breakers on various parts, and the south extreme could not be seen from the mast-head." In regard to the Lizzie Webber Shoal, it is said that the ship of that name struck upon a narrow strip of sand and coral, extending northeast and southwest, very little under water. Now, keeping in view the direction of these shoals, the concurrent description and their reported extent, it would appear certain that they are one and the same danger, and that the only error in these reports is in the longitude of Capt. Trinder, by about 40 minutes arc, which in those days would not have been remarkable with merchantmen. The shoal would reach from $8^{\circ} 24'$ to $8^{\circ} 04' N.$, and its central longitude would be $113^{\circ} 35' E.$ The British Admiralty chart of the China Sea places the Stag and Lizzie Webber shoals as reported, but the Madras shoal is not marked on it.

With Pulo Oby bearing E. N. E., 38 miles distant, in 13 fathoms water, the Neptune saw a sunken ship, the masts above water. No danger is indicated there on charts.

A bank, over which, for $1\frac{1}{4}$ mile, from 6 to 10 fathoms hard bottom were carried; requires further examination. It is marked on the British Admiralty chart.

No danger is marked on the charts in this position.

Next day, after finding the McLaughlin Reef, (No. 466,) the Gray Feather again fell in with discolored water, and sounded in $19\frac{1}{2}$ fathoms, coral bottom. From aloft the reef could be distinguished as of a circular form, $2\frac{1}{2}$ miles in circumference. It is not placed on any chart.

(Ship Madras, 1864
{ Brig Amboina, 1802
{ Ship Lizzie Webber
(Naut. Mag., 1865, p. 51; Merc.
Mar. Mag., 1860, p. 222; Ann.
Hydr., 1864, III, p. 197; Hors-
burgh, II, p. 405.)

113 35 00 E.

} 8 24 00 N.
to
} 8 04 00 N.

113 34 36 E.
112 57 00 E.
113 12 00 E.

8 14 00 N.
8 24 00 N.
8 04 00 N.

Madras Shoal
Stag's Shoal
Lizzie Webber Shoal.

493
494
495

Ship Neptune
(Merc. Mar. Mag., 1861, p. 346.)

104 14 00 E.

8 13 00 N.

Shoal.....

496

Lieut. Gordon, British Navy.
(Naut. Mag., 1848, p. 387.)

105 11 30 E.

8 12 30 N.

Royalist Bank.....

497

Whaler report.

114 48 00 W.

8 11 00 N.

Three Islands

498

Capt. McLaughlin, of the ship
Gray Feather.
(Ann. Hydr., VII, p. 18.)

148 44 00 E.

8 09 00 N.

Reef

499

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
500 501	Dunkins, or Wishard Reef.	8 08 00 N. 8 06 00 N.	154 29 00 E. 154 00 00 E.	0 1 "	0 1 "	{ Capt. Webb, of the ship Mildman. Capt. Castello, of the ship Sophia. (Naut. Mag., 1855, p. 332, and 1859, p. 276.)	(In 1855 Capt. Castello discovered a reef which was not on his chart, and on which he saw a wreck. He describes it as elliptic in form, of about 7 miles in extent from east to west, and about 2 miles from north to south, with but a small portion of it dry on the eastern part; the rest was level with the water, or only a few feet covered. This reef Capt. Webb discovered again in 1858, and then saw two wrecks on it. The positions of both captains are of the western extreme. Charts note there the Wishard or Dunkin Reef. The British Admiralty chart places it higher north, with an interrogatory. Horsburgh and Findlay place Larkin's Reef some 40 miles southeast of this position.
502	Owen's Shoal.....	8 07 00 N.	112 00 00 E.	.....	.....	Capt. Owen, of the ship David Scott. (Horsburgh, II, p. 405; Naut. Mag., 1848, p. 563.)	The discoverer of this bank, (Capt. Owen,) in 1835, had soundings of from 6 to 4½ fathoms, and one east of 3½ fathoms. He estimates the shoal 2 miles in extent, and says it is of a vigorous coral growth. Since then it appears not to have been seen. The British Admiralty chart notes it as an unconfirmed report.
503	Du Peyster's Group..	8 05 00 N.	178 17 00 E.	.....	.....	Whaler report.....	Is an error of northern instead of southern latitude; the group exists in 8° 04' S., 178° 29' E.
504	Laurel's Bank.....	8 05 00 N.	108 14 00 E.	.....	.....	Lieut. Gordon, British Navy..... (Naut. Mag., 1848, p. 384.	The ship Royalist, standing N. N. W., came suddenly into 10 fathoms water, rocky bottom, from having had immediately before no bottom at 25 fathoms. She tacked, and got in stays, 8 fathoms. The position is only approximate, and that may be the reason the bank is not placed on the British Admiralty chart.
505	Bank.....	8 05 00 N.	110 27 30 E.	.....	.....	Ship Eliza..... (Horsburgh, II, p. 405; Naut. Mag., 1845, p. 376.)	This is the Prince of Wales' Bank, which H. B. M. ship Grampus, in 1810, found to extend from 8° 03' to 8° 13' N., and from 110° 24' to 110° 34' E., with generally from 9, 10, and 12, to 30 and 40 fathoms water, and with a few casts of 5½ fathoms, one of them close to 45 fathoms. The reef seems not to have been examined since. Captain Grainger, in the Eliza, ran over a part of it.
506	Barber's Island.....	8 04 00 N.	170 00 00 W.	.....	.....	China Mail	Noted by the British Admiralty chart, with an interrogatory.

507	Reef.....	8 04 00 N.	77 50 00 E.	.....	Capt Hope, of H. B. M. ship <i>Thalis</i> . (Naut. Mag., 1844, p. 526.)	Breakers seen 5 miles off shore, near Cape Comorin, with the following bearings: when three-quarters of a mile S. E. $\frac{1}{2}$ E. of them, extremity of land W. by S. to N. E. by N., and the conical rock of Ghaut Mountains W. $\frac{1}{2}$ S. When standing in, the water shoaled suddenly from 11 to 3 $\frac{1}{2}$ fathoms. The shoal is indicated on the British Admiralty charts, but perhaps too far in shore.
508	Island.....	8 00 00 N.	177 20 00 W.	.....	Whaler report.....	No island is marked there on charts; the nearest shown is "Barbara," 9° 00' N., 178° 00' W.
509	South Shea Shoal.....	8 00 00 N.	114 55 00 E.	}	{ Capt. Shea, of the ship <i>Buckinghamshire</i> . Another report..... (Horsburgh, II, p. 401.)	{ Probably identical shoals seen by Capt. Shea in 1835, consisting of two reefs of rocks, with high breakers, extending 1 $\frac{1}{2}$ mile E. by S. and W. by N., and 1 mile north and south. The British Admiralty chart places them in 7° 59' N., 114° 55' E.
510	Shoal.....	7 58 00 N.	114 50 00 E.			
511	Reef.....	7 56 00 N.	154 20 00 E.	.....	San Francisco Herald.....	Is 10 miles long, and is most probably identical with the Duncan, Wishard, or Minto Reef. (No. 500 and 501.)
512	Johnson's Reef.....	7 52 00 N.	111 26 00 E.	.....	Capt. Johnson, of the ship <i>Tory</i> ... (Naut. Mag., 1845, p. 270.)	The Captain reports: "From the appearance of the water I became apprehensive of danger, and soon saw the coral reef under the bottom of the ship; I immediately wore ship. In casting the lead I found great overfalls, the soundings being in one instance 3 fathoms and in the next 20 fathoms. I could perceive the water breaking close to one part of the reef, where I supposed would be about 4 or 5 feet. From the mast-head the reefs were seen extending in a northwest and southeast direction, about 1 $\frac{1}{2}$ mile. After wearing ship we were immediately off soundings." The British Admiralty chart indicates the reef; but it requires further examination to determine its true position.
513	Rock.....	7 51 00 N.	139 54 00 W.	.....	Whaler report.....	Is not marked on any chart.
514	Four Rocks.....	7 51 00 N.	176 06 00 W.	.....	Whaler report.....	Not found on any chart.
515	Ganges Bank.....	7 47 00 N.	110 21 00 E.	.....	Capt. Grainger, of the ship <i>Eliza</i> ... (Naut. Mag., 1845, p. 376.)	Coming from the Prince of Wales' Bank, Capt. Grainger unexpectedly saw rocks and coral under the ship's bottom, and sounded for two hours in from 6 $\frac{1}{2}$ to 15 fathoms, making 3 miles per hour on a S. S. W. course. The position given is about the centre. The bank is indicated on the British Admiralty chart.
516	Island.....	7 48 00 N.	173 12 00 W.	.....	Whaler report	No island or danger is shown there on charts.
517	Johnson Reef.....	7 45 00 N.	111 43 00 E.	.....	Capt. Watkins, of the brig <i>Antelope</i> . (Naut. Mag., 1848, p. 563.)	The position given here would be the southwest extreme of the Orleana Reef, as shown in the British Admiralty chart. Very little is known of this rock.
518	East'n Caroline Island.	7 44 00 N.	147 27 00 E.	.....	Whaler report.....	No island appears to be marked there on any charts.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
519	Reef	0 1 " 7 41 00 N.	0 1 " 114 15 00 E.	0 1 "	0 1 "	Capt. Russell, of H. B. M. ship Reynard. (Ann. Hydr., 1864, III, p. 197.)	In searching for the Madras shoal, Capt. Russell found a very extensive shoal in this position, which is midway between the Ardasier Breakers and the Gloucester Breakers—both noticed as questionable on the British Admiralty chart of the China Sea—respectively in 7° 50' N., 114° 17' E., and 7° 34' N., 114° 10' E. A description of the new shoal is not given, nor has it been placed on the same chart, corrected to 1864.
520	Shoal.....	7 38 00 N.	112 40 00 E.	.....	.....	Alta California.....	Is not shown on charts, nor is there any other authority for it known. On the same latitude (but 21 miles to the eastward) the British Admiralty chart places the London breakers, with an interrogatory.
521	Shoal.....	7 38 00 N.	112 00 00 E.	.....	.....	China Mail	Is not shown on charts. The report may refer to the southern end of the Orleans Bank. (See No. 517.)
522	Andasier Bank..... Breakers	7 37 00 N. 7 38 00 N.	113 58 00 E. 113 53 00 E.	} 7 37 00 N. }	113 56 30 E.	{ Ship Birman, 1853..... Capt. Dallas, of the ship Fiery-Cross..... (Naut. Mag., 1854, p. 110; Horsburgh, II, 406.)	{ The Birman struck in the reported position, and remained fast, with 3 fathoms alongside and 2 fathoms under her bow, close to 80 fathoms. This shoal of small extent was seen again in 1862, and placed very nearly in the same position. In the latter position it is marked on the British Admiralty chart. The southern Ardasier Rock—marked on the same chart as questionable—in 7° 34' N., 114° 11' E., may be the same danger. It is certainly distinct from the Swallow Shoal, which was seen by the Birman on the same day, and is probably placed correctly in 7° 23' 30' N., 113° 47' E. (nearly concurrent determinations by the ships Swallow and Lady Clive, 1801, and Capt. Ross, 1817.)
523	Pearl Island	7 35 00 N.	111 29 00 E.	.....	.....	{ Naut. Mag., 1848, p. 563..... Salem Gazette.....	{ Captain Watkins, of the brig Antelope, reports an island close to this position, where the 9-fathom Bank is shown by the British Admiralty chart as "Kinston Bank," seen in 1841.
524	9 Fathoms.....	7 36 00 N.	111 28 00 E.	.....	.....		
525	Shoal.....	7 35 00 N.	114 40 00 E.	.....	.....	Capt. Fox, of U. S. ship Plymouth.	A 9-fathom cast, not noted on charts.

Shoal.....	7 35 00 N.	149 36 00 E.	.....	Captain Blacklock, of the ship Cowiemulzee. (Merc. Mar. Mag., 1862, p. 285.)	In the reported position Capt. Blacklock saw the bottom quite distinctly under the ship and all around her, with casts of 7 fathoms on one side of the ship and 15 fathoms on the other; he believed the water was much shoaler in some places, as some of the coral heads appeared to him close to the surface. He sailed for 3 miles on an east course, carrying soundings of from 7 to 15 fathoms, then suddenly 30, and no bottom at 100 fathoms. When on the edge of the reef, the Martyr group of islands bore W. by S. $\frac{1}{2}$ S., 20 miles distant. No breakers were seen, with smooth water. If the position and estimated distances are correct, then Tamalam Island (the easternmost of the Martyrs) would be considerably too far east on the charts, none of which show the shoal.
527 Five Islands.....	7 32 00 N.	145 31 00 E.	.....	Naut. Mag., 1849, p. 26.....	{ These groups are reported by some authorities, whilst others do not mention them. Navigators are cautioned to use great care in navigating through the Carolines. Great confusion exists in regard to the islands and reefs, and doubtless the positions of many of the latter are unknown.
528 Tucker's Island.....	7 22 00 N.	146 48 00 E.	.....	Naut. Mag., 1849, p. 26.....	
529 Vanguard Bank.....	7 32 00 N.	109 35 00 E.	.....	Capt. Walker, of the brig Vanguard. (Naut. Mag., 1846, p. 148; Horsburgh, II, 406.)	
530 Bombay Castle Shoal.	7 30 00 N.	107 01 00 E.	.....	Naut. Mag., 1837.....	Soundings half a mile east and west in 14 fathoms, known as Vanguard Shoal on charts. The ship Bombay is said to have had only $5\frac{1}{2}$ fathoms on some patches, and that there may be even less water.
531 Viper Shoal.....	7 28 00 N.	115 02 00 E.	.....	Ann. Hydr., 1861, II, p. 505.....	No danger is shown there on charts.
532 Sunken Rock.....	7 25 00 N.	117 17 00 E.	.....	Capt. Seetyen, of the bark Osna-bruck. (Naut. Mag., 1860, p. 221.)	This obstruction, placed by the British Admiralty chart as "doubtful," right in a line of deep soundings, has been searched for repeatedly, but has not been found.
533 Alphee Shoal.....	7 24 00 N.	81 50 30 E.	.....	Lieut. Geheuné, of the French steamer Alphee. (Naut. Mag., 1864, p. 611; Ann. Hydr., XXVI, p. 456.)	The bark struck on a small detached rock in the South Balabac channel, (South Mungsee Island bearing N. N. E., 8 miles, and North Guhuan Island E. by S., 3 miles distant.) It is not on the British Admiralty chart of 1865.
534 Reef.....	7 21 00 N.	156 30 00 E.	.....	Whaler report.....	A rock on which the Alphee struck, 100 to 150 yards long, with about $19\frac{1}{2}$ feet water on it, and from 12 to 14 fathoms close-to—more than 2 miles off shore. It is not marked on any chart.
535 Circe Bank, Philip-pines.	7 17 30 N.	122 36 23 E.	.....	French Goelette Circe..... (Ann. Hydr., 1864, III, p. 199.)	In this position the ship Isabella is said to have been wrecked on a reef 80 miles long. If so, the reefs running to the eastward from Bordelaise are not represented far enough to the eastward on the charts. The island and its surroundings are not well known.

Bank, one cable in extent, with 4 fathoms on it; sand and rock; 6 fathoms around and 16 fathoms half a cable distant. The following bearings were taken from it: Pandalusam Island N. 17° E., and south point of Olutanga Island S. 86° E. It is not on any chart.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
536	Pulo Lozin, (eastern rock.)	0° 17' 30" N.	101° 59' 45" E.	0° 17' 30" N.	101° 59' 45" E.	Capt. Clark, of the ship William Gillies. Naut. Mag., 1845, p. 199; Horsburgh, 6th ed., II, p. 309, footnote, and 8th ed., II, p. 192.)	The British Admiralty chart of the Gulf of Siam (corrected to 1864) lays down only one rock under this name in 7° 21' N., 102° 05' E., (Raper has it 102° 00' E.) Capt. Clark found two rocks—a western one, estimated by him to be from 12 to 14 miles distant W. by S. from the other. Horsburgh, prior to this, in the sixth edition of his Directory, had already made a similar statement from the journal of the ship Formosa, placing the two rocks in the same latitude, (7° 17' N.) but only 8 miles distant from each other, and bearing E. $\frac{1}{2}$ S. and W. $\frac{1}{2}$ N. The eighth edition omits this notice, and mentions only a rock in 7° 21' N., 102° 01' 30" E. The water around them appeared to be bold—27 fathoms, muddy bottom.
537	Shoal	7° 16' 00" N.	115° 05' 00" E.	.....	.....	Capt. Gribble, of the ship Ottawa. (Naut. Mag., 1861, p. 220.)	The log book of the Ottawa records: "Dec. 6th, 1860, 2.45 p. m. sighted from the mast-head broken water, having every appearance of being a shoal, about half a cable long, east to west, with no indication of shoal water near it. When abeam, at 3 p. m., it was 2 or 3 miles distant, and just visible from the deck." The editor of the Nautical Magazine accepts this as the real position of the Viper Shoal, (see No. 531,) but the British Admiralty chart of the China Sea (corrected to 1864) shows at this spot no bottom at 1,000 fathoms depth.
538	Evalouk	7° 11' 00" N.	145° 08' 00" E.	.....	.....	Naut. Mag., 1849, p. 226.....	All other authorities, evidently based upon one and the same determination, place the island in 7° 15' N., 144° 30' E. (Compare remarks to No. 527.)
539	Pakeen Group	7° 10' 00" N.	157° 40' 00" E.	.....	.....	Naut. Mag., 1848, p. 540; Findlay, II, p. 1084.	This group of five islands, situated northwest of Ponynipéte, is omitted on Blunt's chart. Findlay, (edition of 1851,) by a supposed typographical error, places this group in 168° 40' E.
540	Bank	7° 08' 00" N.	116° 18' 00" E.	.....	.....	H. B. M. ship Furious..... (Merc. Mar. Mag., 1859, p. 370.)	Bank seen August, 1859, with from 10 to 12 fathoms of water over it. It is found on the British Admiralty chart with only 7 fathoms water over it in 7° 03' N., 116° 21' E.

541	Shoal	7 05 00 N.	111 26 00 E.	.....	An English ship.....	Overfalls in 3 fathoms seen Oct. 22, 1844, bearing from Prince of Wales' Bank E. by S. $\frac{1}{2}$ S. The date of the report, and the wording of it, leave no doubt that it is a badly copied extract from the report referred to in No. 512, and that 7° 05' N. should read 7° 50' N.
542	Reef .....(about)	7 00 00 N.	93 40 00 E.	.....	Naut. Mag., 1856, p. 100.....	A reef runs out a long distance from the west point of the southernmost Nicobar Island in an east-southeast direction. It is not generally placed on charts.
543	Angour Reef	6 55 00 N.	134 08 00 E.	.....	Capt. McClellan (Naut. Mag., 1856, p. 50.)	The report says: "Passing around the south end of Angour, at about 2 miles distance, I saw breakers and a few black rocks show occasionally for three-quarters of a mile off the south point; also a few for a good half mile farther."
544	Unicorn Reef. (about)	6 51 00 N.	121 56 00 E.	.....	Capt. Williams, of the ship Unicorn. (Naut. Mag., 1843, p. 509.)	The Unicorn struck on a coral shoal then unknown, the north end of the westernmost Santa Cruz Isle bearing E. by S. $\frac{1}{4}$ S., 7 miles distant, Fort Caldera N. $\frac{1}{4}$ E., and Fort Sambonganum N. E. by E. $\frac{1}{4}$ E. Grounded forward in 2 $\frac{1}{2}$ fathoms. The ship being afloat aft, boats were got out, and 3 $\frac{1}{2}$ fathoms water found a ship's length off the bow to the westward, deepening to 6 fathoms at the distance of a cable's length off; abeam 4 fathoms were found, and under the stern 5 $\frac{1}{2}$ fathoms; a ship's length to the southwest 7 fathoms, and a cable's length off 10 fathoms water were found. As this region has not been well surveyed, navigators should be on their guard. This shoal does not appear on any chart.
545	Ames Shoal	6 49 00 N.	122 00 00 E.	.....	Naut. Mag., 1853, p. 500.....	A second shoal reported to be in these waters, with Point Caldera bearing northwest, the Sangboys W. by S., the eastern peak of Baseelan S. E. by E., the eastern Santa Cruz Island E. $\frac{1}{4}$ N., and the western Santa Cruz N. E. $\frac{1}{4}$ E., distant 4 miles. It is not generally marked on charts.
546	Shoal Patch.....	6 50 45 N.	116 10 30 E.	.....	H. B. M. ship Furious.....	A more reliable examination places this patch in 6° 47' N., 116° 13' E., where 6 fathoms are given by the British Admiralty chart instead of 10, as reported.
547	Royalist Islands	6 47 00 N.	152 08 00 E.	.....	Naut. Mag., 1849, p. 23.....	Blunt's chart places this group in 6° 32' N. Norie's authority and this reporter (who saw the islands) agree.
548	Reef	6 47 00 N.	122 15 00 E.	.....	Capt. Eyre, of the ship Helena (Naut. Mag., 1848, p. 92.)	The ship struck upon a coral flat, 1 $\frac{1}{2}$ miles northwest from Cocos, or Manilipa Islands, (when in tow of a boat,) five minutes after having had no bottom at 90 fathoms. The danger is noticed as questionable on English charts.
549	Island.....	6 45 00 N.	106 10 00 W.	.....	Whaler report.....	In 6° 00' N., 106° 02' W., Duncan Island is placed on some charts, as reported. This island is not found on any chart.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
550	Shoal	6 42 00 N. 6 42 00 N.	118 26 30 E. 118 26 30 E.	6 42 00 N. 6 42 00 N.	110 26 30 E. 110 26 30 E.	Capt. Sprately..... (Naut. Mag., 1851, p. 491.)	Bottom was seen under the ship and soundings had at 10½ fathoms, gradually deepening to the northwest to 27 fathoms, and after that no bottom. The following bearings were taken: The centre peak of Cayagan Sooloo N. N. E. ½ E., the southwest Mobegee Island N. by E. ½ E., and the small island Mambahenewan S. E. ½ S. This bank is not marked on the British Admiralty chart.
551	Davis Island	6 40 00 N.	170 10 00 W.	.....	.....	New York Tribune, March, 1858..	Does not appear on any chart.
552	Island	6 39 00 N.	166 18 00 W.	.....	.....	Whaler report.....	{ The brig Josephine ran over the second position at midday with good observations, and although she saw many birds—among them land birds—no land was seen. Charts generally have an island marked there, with an interrogatory. Palmyra (the nearest known island) is 220 miles off. (See No. 568.)
553	Island	6 38 00 N.	166 02 00 W.	.....	.....	Whaler report.....	
554	Island and Shoal	6 36 00 N.	166 00 00 W.	.....	.....	Whaler report..... (Naut. Mag., 1861, p. 220.)	
555	Shoal	6 36 00 N.	160 00 00 W.	.....	.....	China Mail.....	No danger is shown on any chart in this position.
556	Shoal	6 30 00 N.	163 30 00 W.	.....	.....	Whaler report.....	Noticed in some charts as questionable.
557	Danger	6 30 00 N.	162 32 00 W.	{ 6 27 30 N.	{ 162 21 00 W.	{ New York Tribune, March, 1858. Captain Kingman, of the ship Shooting Star. Ship Alice Thorndicke..... (Naut. Mag., 1860, p. 277; Honolulu Friend, Sept., 1855.)	{ Charts have in this position a reef, with a query. Capt. Kingman, of the Shooting Star, says; "At 10 a. m. made breakers ahead; kept on our course until we were within a mile of them, when we steered W. S. W., and ran on that course 10 miles. When, judging that we were past all danger, hauled up to the south, and soon saw bottom; cast the lead, and found 6 fathoms; kept off again, and shortly after deepened to 25 fathoms, no bottom. The shoal is composed of coral and sand, and when the breakers on the northeast part bear east, with a moderate wind, a few small spots of sand or coral can be seen above water. The northern part runs east-south-east and west-northwest 12 miles; shoal water extends several miles to the southward." Capt. Kingman claims to have had particularly good observations.
558	Reef	6 27 00 N.	162 12 00 W.				
559	Reef	6 24 00 N.	162 22 00 W.				
560	Shoal	6 18 00 N.	149 28 30 E.	.....	.....	Capt. Masters, of the bark Lady Elgin. (Naut. Mag., 1855, p. 278.)	Soundings were carried over this position for 1½ mile in from 7½ to 8½ fathoms, and broken water was seen to the northward of it. Good observations are claimed for the determination of the position. Var. (Nov., 1854) 4° E. This bank does not appear to be marked on charts.

Capt. Musgrave reports the discovery of two small islands. Capt. McAskill also reports two islands, which are covered with trees, and extend about 3 leagues northeast and southwest. Rev. Dr. Gulick, of the Pacific Mission, reports them inhabited by 300 people. The McAskill group is marked on some charts with an interrogatory. The British Admiralty places the two islands some miles further south, naming them separately Téke and Pelelep. Raper states that the group consists of three islands. The Musgraves have been repeatedly searched for unsuccessfully, and their identity with the McAskills is probable.

This bank did not show breakers; but from no bottom, with the hand-lead, soundings were obtained on one side of the ship of 11 and on the other side of 7 fathoms. A course west one mile and north half a mile shoaled the soundings to 4½ fathoms. The water suddenly deepened, and in two casts more there was no bottom. The bank is placed on the British Admiralty charts.

In the reported position heavy breakers were seen, which are not shown on charts. The nearest dangers shown on charts are the Louisa Rock (awash) 6° 20' N., 113° 18' E., and the (doubtful) Friendship Shoal, seen in 1804, and reported to be in 6° 00' N., 112° 49' E.

The schooner ran over a reef, the rocks of which she saw with about 4 fathoms water over them. The British Admiralty chart notes it as a report, but many charts do not show it all.

The Ianthe passed within one or two ships' lengths of the eastern edge and the shoalest part of a ridge of sharp rocks (apparently not more than 8 or 10 feet under water, the water of a milky whiteness) in soundings of probably 6 or 8 fathoms. The shoal appeared to extend S. by E. and N. by W. about half a mile. The Ianthe claims to have obtained on the same day a good meridian altitude, and estimates the nearest land to have been distant 85 miles. The Nile passed over a reef, with little room to spare, the rocks being plainly visible on each side of the vessel, and the man aloft reported breakers on one side; the bark was before the wind and only a few minutes between the rocks. Notwithstanding the great difference in the latitude, the two reports refer probably to one and the same reef—the reported latitude of the Ianthe being a misprint or misreading of 5° 53' for 5° 33'; otherwise the nearest land (the Swede Islands of the Caroline group) would have been 105 miles distant. Some charts have taken the Nile's and others the Ianthe's position for this shoal.

561	Musgrave Islands.....	6 15 00 N.	159 15 00 E.				Capt. Musgrave, 1793.....
562	McAskill Islands	6 13 30 N.	160 48 00 E.				Capt. McAskill, 1809
							(Findlay, II, p. 1076; Naut. Mag., 1848, p. 578-79, and 1862, p. 385)
563	Fury Bank.....	5 56 00 N.	114 50 00 E.				H. B. M. ship Fury
							(Naut. Mag., 1858, p. 212.)
564	Shoal	5 56 00 N.	113 07 00 E.				Capt. Prater, of the ship Henriette.
565	Maria Shoal.....	5 55 00 N.	164 00 00 W.				Capt. Crane, of the schooner Maria.
							(Naut. Mag., 1863, p. 336.)
566	Ianthe Shoal.....	5 53 00 N.	145 39 00 E.	} 5 32 00 N.	145 40 00 E.		{ Ship Ianthe, 1845.....
567	Ianthe Shoal.....	5 31 00 N.	145 42 00 E.				
							{ Bark Nile, 1860.....
							(Naut. Mag., 1846, p. 265; and 1861, p. 166. Merc. Mar. Mag., 1861, p. 95.)

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
568	Palmyra Is'land.....	0 4 " "	0 1 " "	0 1 " "	0 1 " "	Capt. Bent, of Honolulu..... N. Y. Tribune, 1858..... (Naut. Mag., 1862, p. 616.)	{ Charts exhibit this island still on the meridian on which it was placed by its discoverer, (Capt. Sawle of the ship Palmyra,) viz., 162° 23' W. Capt. Bent recently placed it in 161° 53'.
569	Palmyra Island.....	5 50 00 N. 5 43 00 N.	161 53 00 W. 162 20 00 W.	.....	.....		
570	Bannerman Island....	5 50 00 N.	111 10 00 E.	.....	.....	Whaler report.....	Is not found on charts.
571	Reef.....	5 44 00 N.	111 34 00 E.	.....	.....	Captain Freeman, of the bark Wellesley. (Naut. Mag., 1840, p. 377; Horsburgh, II, p. 405.)	Capt. Freeman relates that the Rob Roy struck on a reef 29 miles to the southwest of the West London Reef; therefore, the report should read, "8° 44' N." instead of 5° 44' N. The description (a sand-bank at each end and a small black rock in the centre) answers to the Cyrus Reef reported about there by Capt. Spratley. (See Nos. 473 and 474.) Horsburgh, in his 6th edition, p. 499, has the same error. In the 8th edition it has been corrected.
572	Winchester Rock.....	5 41 50 N.	115 17 25 E.	.....	.....	Capt. Bate, of H. Brit. M. ship Winchester. (Naut. Mag., 1854, p. 111.)	A narrow ridge of rocks, on which the Winchester struck, about 40 feet in length, with 17 feet over it at low water spring tides, and surrounded by a bank of sand and coral from 2 to 3 cables in extent, having an average depth of 5 fathoms, with 10 and 12 fathoms immediately off it. From the rocks, the northwest highest part of Pulo Tigo bears N. 84° E., Nosong Point S. 73° 30' E., distant 15 miles; Mt. Nosong S. 68° 30' E., and the highest part of Labuan S. 18° 40' W. Instead of 115° 17' 30" E., on which meridian it was placed from these bearings at the time, the British Admiralty chart of the China Sea has it in 115° 24' 30" E.
573	Shoal.....	5 44 00 N.	115 00 00 E.	.....	.....	Capt. Massie, of the ship Cleopatra. (Ann. Hydr., III, p. 241.)	The master of the Cleopatra says: "Sounding, we got, without warning, 26½ and 29½ feet, and turning west immediately, 22½ fathoms; fine sand." The shoal certainly extends east-southeast. It is not marked on the British Admiralty chart; but three miles further south two patches are shown. (See No. 574 and 575.)

574	Bank	5 42 00 N.	114 59 00 E.	.....	H. B. M. ship <i>Furious</i> (Naut. Mag., 1858, p. 212.)	N. W. of the place marked on the British Admiralty chart "Samarang, 4 fathoms," a shoal was seen extending 4 or 5 miles from east to west, and 3 to 4 miles broad, showing breakers for a mile and a half. The deepest water found was 12, the least 6 fathoms. The place is now shown as a danger on the charts, but requires further examination.
575	Shoal	5 39 00 N.	114 59 00 E.	.....	Lieut. G. V. Fox, U. S. N.	A cast of 4½ fathoms, and is evidently the spot marked "Samarang," spoken of in No. 574.
576	Starbuck Island	5 40 00 N.	156 55 00 W.	.....	China Mail	There is nothing authoritatively known about this island, and it is generally placed on charts with an interrogatory. Most probably it is not in northern latitude. Lord Byron discovered, in 1825, an island, said to be in 5° 58' 30" S., 155° 58' W., and this also bears the name of "Starbuck," but appears to be quite as little known, as on different charts it has a range of 50 miles in latitude and 30 miles in longitude.
577	Four small shoals	5 40 00 N.	161 08 00 E.	.....	Brig <i>Cyrus</i> (San Francisco Herald; Findlay, II, p. 1015.)	These islands, reported to be low and inhabited, are found on some charts with an interrogatory, whilst other charts do not show them at all. May not a mistake have been made by changing southern to northern latitude? Kru-senstern places in 5° 40' S., 160° 20' E., Howe's group, which consists of 32 low, wooded, and inhabited islets, the outlying ones of which the <i>Cyrus</i> may have seen. To the discoverer of the group (<i>Tasman</i>) the inhabitants stated there were only six in number. The <i>Cyrus</i> also had communication with the natives, though only by boats.
578	Shoal	5 38 40 N.	115 21 00 E.	.....	Spanish brig <i>Neptune</i> (Ann. Hydr., 1861, I, p. 207.)	A shoal is merely reported seen, without a description being given. The assigned position, as placed on the British Admiralty chart of the China Sea, falls on a 13-fathom cast, between 6 fathoms, marked as a submarine spring, "and the Jabat Shoal with 1 fathom," and is probably identical with one of these two patches.
579	Haycock Island	5 35 00 N.	127 37 00 E.	.....	Bark <i>Cordelia Beran</i> (Merc. Mar. Mag., 1860, p. 36; Horsburgh, 6th ed., II, p. 588; and 8th ed., II, p. 563.)	The report says: "Haycock Island was passed close to by the bark <i>Beran</i> . It has a hill on its eastern extremity, resembling a haycock at a distance; the western part is low, palm trees growing on it." The British Admiralty chart places Haycock in 126° 27' E., Raper in 126° 40' E., Blunt in 127° 32' E.; consequently there is a discrepancy of one degree in longitude between authorities. Horsburgh in his 6th edition records: "At 6 p. m., June 22d, 1813, the Volunteer passed the Meangis Islands, (5° 00' N., 127° 45' E.,) bearing S. by E. about 6 leagues; at the same time a high rock or isle like a haycock bore N. by W." In the 8th edition of Horsburgh the Mangis Islands are placed in 4° 54' N., 127° 10' E. These great differences make it necessary for navigators to be careful.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
580	Shoal.....	0° 34' 00" N.	0° 19' 20" 00 E.	0° 19' 20" 00 E.	0° 19' 20" 00 E.	Capt. Marsh, of the brig Gem..... (Naut. Mag., 1850, p. 293; Horsburgh, 6th ed., II, p. 541, foot note, and 8th ed., II, p. 517.)	Coral patches, about 2 miles in extent, just under the water, seen plainly by Captain Marsh from the mast-head, in the reported position, when Point Unsang bore S. S. E. and the west point of Tambesarg S. S. W. They are not shown on charts. On the British Admiralty chart of the China Sea the bearings would place this danger 8 miles to the westward of the reported position; but Captain Marsh expressly states that he believes Unsang Point to be placed too far to the westward, and that in general he finds all the islands and shoals in that neighborhood laid down incorrectly. In the 8th edition of Horsburgh's Directory the longitude of Unsang Point is changed 5 minutes to the eastward of the place assigned to it in the 6th edition; and Tamelana Reef is given in 5° 41' N., 119° 22' 30" E., 16 miles N. by E. of Point Unsang, with 4½ fathoms, and probably less, water thereon. This may be the shoal of Captain Marsh, or an easterly extension of it. Sir Edward Belcher places Unsang Point in latitude 5° 17' 30" N. The reported distance of the Tamelam Reef would put the latter in the position assigned to it by Captain Marsh.
581	Reef.....	5° 30' 00" N.	123° 21' 00" E.			Ship Mariveles.....	Reef near Bouton Island, of considerable extent, from east to west, with rock and coral visible towards the west side. Soundings were obtained in 10 to 30 fathoms on the north side of the reef, with 115 fathoms a ship's length off. It appears not to be placed on charts.
582	Madison's Island.....	5° 30' 00" N.	159° 00' 00" W.			Whaler report.....	No island is shown there by charts.
583	French Rocks.....	5° 28' 00" N.	107° 40' 00" E.			Nautical Magazine, 1863, p. 499....	Commander Reid, of the British surveying steamer Rifleman, reports: "From the Pyramid Rocks we carried a line of soundings to the position of the French Rocks, (three rocks above water, N. N. W. ½ W. of Pulo Lant.) We approached it on a W. by N. ½ N. bearing, and at noon were 2 miles due north of it; we then steered S. 7¼ miles, N. W. 9 miles, and N. E. 6¾ miles, but saw no signs of the rocks; soundings from 35 to 40 fathoms." The latest British Admiralty chart does not show them.

583½	Shoal.....	5 24 00 N.	107 40 00 E.	.....	Salem Gazette.....	37 fathoms are marked there on the British Admiralty chart of the China Sea.
584	Labuan Rock, (about)	5 14 00 N.	115 12 00 E.	.....	P. & O. Steamer Formosa..... (Naut. Mag., 1856, p. 514.)	Going into Labuan, the steamer struck on a rock in the centre of the channel between Kuraman Island and Kiam-san Point, with the latter bearing N. N. E. ½ E. and Burong Island east. The commander thinks that there are about 10 feet over it at low water spring tides.
585	Samarang Island.....	5 10 00 N.	162 23 00 W.	4 56 00 N. 162 20 00 W.	New York Tribune, March, 1858.. (Findlay, II, p. 1051.)	Is undoubtedly the Samarang group of 14 islets, with extensive and dangerous reefs, discovered in 1840 by Captain Scott, of H. B. M. ship Samarang, and well described by Findlay.
586	Shoal..... and	5 04 30 N. 5 05 00 N.	112 44 51 E. 112 41 51 E.	} }	Spanish brig Neptune..... (Ann. Hydr., 1861, I, p. 207.)	The captain reports: "April 7th, 1858, found 22½ feet, then 6½ to 27 fathoms in the first position. After running 4½ miles we again found 22½ feet, sand, in which we anchored and sounded the bank from north-northwest to east-south-east in 12½ fathoms white sand and coral, and one east of 19 feet, at the ends 5½, 6, and 7 fathoms, after which it deepened rapidly; the bank is round, and 5½ cables in diameter." The British Admiralty chart of the China Sea shows these patches as the Luconia Breakers; but the northernmost, and at the same time the shoalest patch, (2 fathoms,) reaches only to 5° 03' N.
587	Barber's Island.....	5 00 00 N.	177 54 00 W.	.....	Whaler report.....	No island is shown in or near this position on charts.
588	Reefs on the west coast of Sumatra.	5 00 00 N.	95 28 00 E.	.....	Admiral Bouricrus, Neth. Navy.. (Naut. Mag., 1855, p. 675.)	Between Oedjong Poo and Poëlo Limpan (a short distance from Diah) a great number of reefs have been found, with 5, 3½, and 3 fathoms over them. It requires a long time to work along the coast clear of them; and they appear in this latitude to extend three-quarters of a mile from the shore.
589	Shoal.....	4 59 00 N.	114 34 00 E.	.....	Lieut. G. V. Fox, of the U. S. ship Plymouth.	Not shown on charts; it is probably the Ampa Patch, marked on charts 6 miles to the westward.
590	Victoria Patch.....	4 55 00 N.	114 41 30 E.	.....	Nautical Magazine, 1860, p. 616...	A coral patch, with only 17 feet water, 7½ miles S. W. ½ S. from the westernmost Bruni Patch, is shown on the British Admiralty charts.
591	Prospect Island.....	4 42 00 N.	161 33 00 W.	.....	New York Tribune, March, 1858.. (Naut. Mag., 1859, p. 500.)	Noted by some charts with an interrogatory; by others it is omitted entirely. Probably it is either the Samarang group (see No. 585) or the Washington or New York Island, discovered by Captain Fanning, seen and placed by the U. S. Exploring Expedition in 4° 41' 35" N., 160° 15' 37" W.
592	Island.....	4 33 00 N.	159 45 00 W.	.....	Whaler report.....	Probably also intended for the Washington Island, just mentioned.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
593	Four Islands.....	0 1 " 4 32 00 N.	0 1 " 169 32 00 W.	0 1 "	0 1 "	Naut. Mag., 1861, p. 220; Mer. Mar. Mag., 1861, p. 95.	Captain Stone, of the brig Josephine, in search of guano islands, ran for these four islands, which are laid down on some charts as occupying a space of 5 or 6 miles, and sailed several times over this position at midday, with clear weather, good observations, and lookouts aloft and on deck, day and night, for 3 days. He saw many birds, mostly land birds, and believes that there are islands in this vicinity, but not within a radius of 60 or 100 miles of the alleged position. There are no other islands or dangers within 250 miles marked on charts.
594	Washington Island....	4 30 00 N.	128 00 00 W.	.....	.....	Whaler report.....	No island or danger is shown there on charts.
595	Linnez Islands.....	4 30 00 N.	169 40 00 E.	4 35 00 N. Centre of Lagoon.	168 47 00 E.	{ A whale ship..... Bark Alliance, 1831..... Capt. Cheyne, 1845..... Capt. Hegemeister, 1831..... Anchorage of the missionary ship Morning Star, 1862, inside. (Naut. Mag., 1848, p. 577; 1862, p. 358; 1863, p. 454; Findlay, II, p. 1071; Horsburgh, 6th ed., II, p. 817; 8th ed., II, p. 803.)	{ All these reports refer most probably to the Covell group, discovered by Captain Ray, 1824, which consists of 23 islets, encircling an atoll of about 25 miles in circum- ference. Ebon Island, thickly populated, is a very narrow strip, stretching quite 8 miles along the entire southwest, south, and southeast border. All the other islands are small, most of them mere patches, so insignif- icant that Captain Cheyne only counts 13 islands. A good inlet into the lagoon for ships (the only one) is in the centre of the west side. The difference in latitude may be accounted for by the different places of observation, and the great extent of the group north and south. The difference in longitude is not so easily reconciled.
596	14 Island Group.....	4 30 00 N.	169 30 00 E.				
597	Corel Islands.....	4 30 00 N.	168 42 00 E.				
598	Boston Islands.....	4 39 00 N.	168 50 00 E.				
	Ebon Islands.....	4 39 00 N.	168 49 30 E.				
599	Breakers.....	4 28 00 N.	108 51 00 E.	.....	.....	{ Capt. Verhey, of the Dutch bark Jan van Brakel. (Ann. Hydr., 1861, III, p. 187.)	{ Breakers 1 mile long from north to south, seen by the bark Vestrey, are not shown by the British Admiralty chart; but the Dutch chart of the China Sea shows them as a report, in 109° 51' E. Either the Annales Hydrographiques or the charts are guilty of an error of 1° in longitude.
600	(In Dutch charts)....	4 28 00 N.	109 51 00 E.				
601	Warwick Island	4 24 00 N.	136 26 00 E.	.....	.....	Whaler report.....	Not found on any chart.
602	3-Fathom Bank.....	4 24 00 N.	107 57 00 E.	.....	.....	Salem Gazette.....	Is the danger shown by English and Dutch charts near this position.

603	Mereire Reef.....	4 19 30 N.	132 28 30 E.	.....	.....	Capt. A. McClellan..... (Naut. Mag., 1856, p. 50.)	A reef stretches from both ends of Mereire Island over a mile, with a rock a good mile off, its north-northeast side showing in the hollow of the sea as a round black islet, about the size of a whale. Horsburgh expressly states that there is no danger near this island. In Blunt's chart of the North Pacific this island is placed 10 miles to the northward of the position of all other authorities.
604	Shoal in the Bay of Bengal.	4 16 00 N.	83 39 00 E.	.....	.....	Capt. Higginson, of the ship Vespasian. (Naut. Mag., 1862, p. 61.)	Steering N. $\frac{1}{2}$ E., (true,) the Vespasian sounded for 9 miles south and 51 miles north of the position given opposite, in 32, 34, and 41 fathoms water, fine white sand and hard bottom, the water appearing brownish green.
605	Shoal.....	4 15 00 N.	85 10 00 W.	.....	.....	Capt. Rivadenyra..... (Findlay, II, p. 1046; Naut. Mag., 1860, p. 587.)	The reporter says that he sounded about here from a boat in 10, 14, 16, 27, and 56 feet, and then had no bottom, adding that he was not quite sure of the position. Capt. Harvey, of H. B. M. ship Havannah, passed within 4 miles of the same position without seeing anything. The British Admiralty chart places the shoal as a position doubtful; other charts do not show it at all.
606	Reef.....	4 10 00 N.	127 20 00 E.	.....	.....	Whaler report.....	Is not laid down on any chart; it is perhaps the Northumberland Shoal, generally placed 25 miles more to the southward.
607	Shoal.....	4 10 00 N.	108 04 00 E.	.....	.....	Salem Gazette.....	Would be inside the reef, which is shown on some charts to surround the Great Natuna Island.
608	Rock.....	4 11 00 N.	107 31 00 E.	.....	.....	Ann. Hydr., XIII, p. 298.....	Admiral Bouricius, of the Netherlands Navy, announces the discovery of a rock, with only 25 feet water on it, bearing N. 59° E. from the Pyramidal Rocks west of the Great Natuna. Dutch governmental charts place it in the reported position, with a query. British charts seem to have misplaced it to the S. E. of the Pyramid Rocks. (See No. 613.)
609	Reef.....	4 04 00 N.	94 40 00 E.	.....	.....	Ship Louvre, 1848.....	For the distance of half a mile, bottom was seen under the ship in about 5 fathoms water.
610	Sarah Anna Island....	4 00 00 N.	154 22 00 W.	.....	.....	New York Tribune, March, 1858..	Noted in most charts, with a query. In latitude 4° S. lies Independence Island, on the same meridian; this may be the same island.
611	Whiteside's Shoal.....	3 58 00 N.	108 33 00 E.	.....	.....	Whaler report.....	No danger is shown in this position by any chart.
612	Barbara Island.....	3 54 00 N.	173 00 00 W.	.....	.....	New York Tribune, March, 1858..	On most charts it is not shown at all; by the British Admiralty it is shown, with a query. In Blunt's chart there is a reef placed about 90 miles west of this position.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
613	Rock.....	3 52 30 N.	107 09 00 E.	0 ' "	0 ' "	Dutch governmental charts..... (Compare Naut. Mag., 1863, p. 409; Merc. Mar Mag., 1863, p. 266.)	Is not shown by the British Admiralty charts, which formerly exhibited a rock 11 miles S. E. of the Pyramid Rocks, (on the same parallel in 107° 25' E.,) which was erased from subsequent issues by the recommendation of Com'r Reed, British Navy, who searched for it there. Probably the reports 608 and 613 refer to the same danger.
614	Fanning's Island.....	3 48 00 N.	158 47 00 W.	3 49 00 N.	159 20 00 W.	(Capt. Fanning, 1798.....	Fanning's Island appears to have become in some measure a station of trade and a resort for whalermen and guano seekers in this isolated part of the Pacific Ocean; it is therefore desirable that its exact position should be defined. The principal reports on record are given, from which the probable position may be deduced. The discoverer of it, Capt. Fanning, speaks of three islands, two of which were 9 miles, and the third 6 miles long; all other descriptions concur in there being but one island, with a lagoon inside. Tromelin makes the island 5 miles long; according to Capt. Pearson it is 10 miles long by 6 miles wide, and is encircled by a small reef extending only half a cable's length off shore. The lagoon is studded with coral patches, which leave, however, a good anchorage for three or four large ships in from 4 to 9 fathoms water. The entrance has a depth of 4 to 6 fathoms water. There is good outside anchorage on the west side of the island, at a place called Whalemén Bay, in from 8 to 15 fathoms, half a mile from shore. The island seems to have been taken possession of by Capt. Pearson for the British Crown. Its entire area is claimed as private property, bought from the natives by a retired merchant captain. Palm oil is extensively pressed, which is the principal article of trade. Ships must be careful when entering the lagoon; the ship America, Capt. Nash, struck on the starboard side of the passage and came near being lost.—(Honolulu Advocate, Feb'y, 1846.)
615	Do.....	3 48 00 N.	159 39 00 W.			China Mail.....	
616	Do.....	3 47 00 N.	159 00 00 W.			Capt. Chase, of ship Alexander..	
617	Do.....	3 53 00 N.	158 23 00 W.			Capt. Tromelin, French Navy, 1828.	
618	Do.....	3 49 00 N.	159 20 00 W.			Commercial Advertiser, Honolulu, 1857.	
619	Do.....	3 49 00 N.	159 19 00 W.			Capt. Morehead, British Navy, 1859.	
620	Do.....	3 49 00 N.	159 20 00 W.			Capt. Zenas Bent, 1859.....	
621	Do.....	3 49 00 N.	159 20 00 W.			Capt. Pearson, British Navy, 1861.	
						(Findlay, II, p. 1050; Naut. Mag., 1857, p. 663; 1859, p. 111, and 1861, p. 432; Merc. Mar. Mag., 1859, p. 362.)	
622	Week's Island.....	3 47 00 N.	158 37 00 W.			Whaler report.....	Is not given by any other authority, and is probably but another position for Fanning's Island.
623	Washington Island...	3 42 00 N.	159 24 00 W.			Whaler report.....	Is doubtless, also, Fanning's Island, placed too far south,

624	Acis Patches	3 45 00 N.	112 42 00 E.	.....	H. B. M. brig Acis..... (Naut. Mag., 1860, p. 616.)	Two coral patches, the eastern one in the reported position, the other on the same parallel a little to the westward. The British Admiralty chart shows them, marked "position doubtful," with 10 fathoms, in 3° 42' N., 112° 50' E., and 9 fathoms, in 3° 40' N., 112° 45' E., respectively.
625	Reef	3 44 00 N.	108 23 00 E.	.....	Dutch reports	A rock, with an interrogatory, is shown here in Dutch governmental charts; the British Admiralty chart of the China Sea shows it also, 4 miles to the eastward of the Dutch position, in accordance with a general difference of 4' longitude between these two authorities hereabout.
626	Bank	3 42 00 N.	95 09 00 E.	.....	Ann. Hydr., XVI, p. 9	Unexpectedly the bottom was seen under the ship, and soundings obtained in 12½ fathoms, white sand; 5 minutes later, 13½, then 15 and 30 fathoms, and no bottom at 71 fathoms; this bank is not shown on charts.
627	Shoal	3 41 00 N.	96 48 00 E.	.....	Admiral Bourcine, Dutch Navy.. (Naut. Mag., 1855, p. 675.)	Kwalla Batoe bearing southward, outside of the reef laid down in Endicott's chart, the lead, after indicating 25 fathoms, mud, suddenly shoaled to 6 and 5 fathoms, hard bottom, on the following bearings: Kwalla Batoe N. 8° E., Cape Felix N. 74° W., and Oedjong Seranga, near Soesal, N. 40° E.
628	America Island	3 40 00 N.	159 25 00 W.	.....	N. Y. Tribune, March, 1858	Is doubtless another position for Fanning's Island, (No. 614 to 621.)
629	Reef	3 38 00 N.	108 24 00 E.	.....	Capt. Broekel, of the Dutch bark Lomina Elizabeth. (Ann. Hydr., XI, p. 363.)	The bark is reported to have struck upon a reef with the following bearings: Pulo Komoeedi and Pulo Janthi in range N. 14° 15' E.; Geonong Ranai, N. 19° W.; highland next to the east point of Natuma, N. 14° W.; and south point of Natuma, W. ½ N. The Dutch chart of the China Sea, by Lieut. Edeling, (1864,) notices the danger as questionable; the British Admiralty chart does not show it.
630	Douglass Island	3 32 00 N.	127 00 00 E.	.....	Whaler report	No island is shown there on charts; the position is a few miles to the southward of the Northumberland Bank.
631	Monteverde Island	3 27 00 N.	155 58 00 E.	.....	Naut. Mag., 1849, p. 25; Findlay, II, 1085.	Nougour, an atoll of 30 islands, was discovered by Capt. Monteverde, of the Spanish frigate La Pala, in 1806, and placed by him in the position given opposite. In this position it is shown generally on charts, with the exception of Blunt's, which places Nougour in 3° 57' N., 154° 52' E., and the Monteverde Islands in 3° 12' N., 155° 42' E.
632	Elphinstone Rock	3 26 00 N.	107 51 00 E.	} 3 23 00 N. 107 51 00 E.	{ Capt. Crawford, of the bark Elphinstone. Capt. Hawkins, of the ship Bo- hemian. Newspaper serap..... (Naut. Mag., 1845, p. 378, and 1849, p. 154.)	This rock, 69 feet high, with a smaller one on each end north and south, seems to be well established and placed on all charts; on the Dutch chart 4 miles to the eastward of the English position, for the reason given under No. 625. A ledge of rocks below the water at irregular depths, reported by Capt. Crawford to extend from the southern smaller rock a long way to the southward, up to the Diana Reef and to the Hutton Rocks, is not found on charts; the British Admiralty chart gives a general notice of foul ground thereabout.
633	Do .....	.....	.....			
633	Sylph Rock	3 25 00 N.	107 53 00 E.			

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
634	Roman Shoal.....	0° 34' 00" N.	0° 04' 00" E.	0° 1' 00" N.	0° 1' 00" E.	Whaler report.....	No danger is shown there on any chart.
635	Shoal.....	3° 20' 00" N.	160° 18' 00" E.			Capt. Mackaw, of the ship <i>Indiana</i> . (Merc. Mar. Mag., 1857, p. 253.)	A coral reef, almost dry in some places, extending northeast and southwest a quarter of a mile, and patches of broken water to the eastward and to the southwest of the above. No bottom was reached with 12 fathoms line while passing between the reef and the eastern breakers. Good observations are claimed to have been had, 11 days after rating chronometer, at Mitre Island. The British Admiralty chart notes the danger as a report; Blunt's chart does not indicate it.
636	Shoal.....	3° 14' 00" N.	107° 52' 00" E.			Capt. Armstrong, of the bark <i>Chalgrove</i> . (Merc. Mar. Mag., 1866, p. 93.)	A dangerous shoal coral patch was found in the reported position, the northeast end of Low Island, bearing S. by W., distant 13 miles. The British Admiralty chart of the China Sea (corrected up to 1864) marks foul ground there.
637	Island.....	3° 03' 00" N.	131° 45' 00" E.			Capt. Legonidec, of the bark <i>Horsburgh</i> .	(Capt. Legonidec's Island is probably the dry bank, 4 miles from the northern extremity of Helen Reef, which is mentioned by Horsburgh. Capt. Pederson's description of this reef gives valuable additions to the accounts collected by Horsburgh. He says: "The reef is 16 miles long, north-northeast and south-southwest, and 8 miles wide at its broadest part near the south end. Its interior is a basin of deep water, encircled by a narrow belt of dark heads of coral, against which the ocean swell dashes with great fury. In sailing around the reef, no break was seen through its margin, nor foul ground along it, except at the south end, where shallow water extended half a mile outside the breakers, and where there appeared to be a narrow opening into the interior. A rock, with 2 or 3 fathoms over it, was discovered lying west about a mile from the wreck of the <i>Lady Raglan</i> and north three-quarters of a mile from the extreme western part of the reef. Tides are strong, flood to the east, ebb to the west, the flood with such force at times that the men could not keep their footing in one foot water."
638	Helen Reef, south end.	2° 50' 00" N.	131° 40' 45" E.			Capt. Pederson, of the bark <i>Berens</i> . (Naut. Mag., 1860, p. 35; Ann. Hydr., VII, p. 14; Horsburgh, II, p. 631.)	

639	Makin Island.....	3 02 00 N.	172 46 00 W.	3 20 43 N.	172 57 00 E.	New York Tribune, March, 1858.. (Wilkes' Narr., V, p. 73.)	The British Admiralty chart notes Makin Island in this position as questionable, but it may be assumed as quite certain that this is an erroneous transposition from eastern into western longitude. Makin is the northern of the two islands constituting the Pitt or Touching group, and is situated in 3° 20' 43" N., 172° 57' E., (the northern point,) whilst the southern point of the other island (Taritari) is in 3° 08' N., 172° 48' E. These islands are fully described by Capt. Hudson, of the U. S. Exploring Expedition, in Wilkes' Narrative, and it is an error in noting only one island (Touching or Pitt.) Capt. Hudson describes Makin expressly as a separated island.
640	Macguilera Island....	2 55 00 N.	125 13 00 E.	.....	.....	Captain Liddle, of the ship Tem- pletey. (Naut. Mag., 1865, p. 128.)	There is on the British Admiralty chart No. 2575 an island to the westward of Siao named Macalara, and another to the northwest named Macguilera. Capt. Liddle has searched diligently for the latter island, and is certain that it does not exist. His evidence is supported by the Dutch governmental chart of the east coast of Celebes, (1855,) where Macalara is given, but <i>not</i> Macguilera. The British Admiralty chart, corrected to 1857, retains it.
641	Young Sabal Shoal..	2 56 00 N.	107 22 00 E.	.....	.....	Chart of the China Sea, by Lieut. Edeling, Neth. Navy, 1864.	A shoal is shown by Lieut. Edeling, with a query, where no danger is indicated on the British Admiralty charts.
642	Rob Roy Shoal.....	2 52 00 N.	108 40 00 E.	.....	.....	N. Y. Herald, Feb'y, 1850.....	No danger is marked there on any chart. The reported shoal is perhaps identical with the next below.
643	Coral Reef.....	2 50 00 N.	109 04 00 E.	2 48 30 N.	109 01 00 E.	Capt. Cobb, of the ship Robin Hood. (Merc. Mar., Mag., 1861, p. 61.)	The ship struck at high water on a coral rock in the Koti passage, Brian Island bearing S. by W. westerly, Panjony S. W. by W. $\frac{1}{2}$ W., and the centre of Seevia or Flat Island W. N. W. The reef became dry about 100 yards ahead, with 10 feet water under the bow of the ship. The British Admiralty chart has no danger marked there; but Edeling's chart shows it in the position cited as probable, where the bearings would place it.
644	Reef south of Great Natuna.	2 48 30 N.	109 01 00 E.	.....	.....	Ann. Hydr., XXVII., p. 239	Awash at low water, with Brian Island bearing S. 17° W., and Pandjang Island S. 59° W. It is shown on Dutch charts.
645	Reef	2 44 00 N.	96 57 00 E.	}	.....	Dutch reports	{ Noted as doubtful positions on the chart of the west coast of Sumatra, by Lieut. Edeling, Neth. Navy.
646	Reef	2 41 00 N.	96 20 00 E.		.....		
647	Two Reefs.....	2 41 00 N.	97 04 00 E.		.....		
648	Sand-bank	2 35 00 N.	108 19 00 E.	.....	.....	Salem Gazette.....	No danger indicated there on any chart.
649	Reef	2 16 00 N.	130 10 00 E.	.....	.....	Dutch reports	Indicated as a doubtful danger on the chart of the Molucca Islands, by Lieut. Gregory, Neth. Navy.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
650	Shoal.....	0 1 " 2 10 00 N.	0 1 " 101 54 00 E.	0 1 "	0 1 "	Capt. Comforth, of the ship Tippos Saib. (Naut. Mag., 1855, p. 279.)	Captain Comforth states, that on a bank in the given position in the Malacca Straits the bark Resitution knocked away her false keel, drawing only 16½ feet water. This must be a new bank, and not, as he thinks, the 3½-Fathom Patch, which English charts place in 2° 07' N., 101° 55' E., and the Dutch chart of Edeling two miles further west.
651	Bank	2 09 00 N.	98 03 00 E.	.....	.....	Admiral Bouricius, Neth. Navy... (Naut. Mag., 1855, p. 675.)	A little to the southward of the coral reef, S. S. W. of Poelo Baberahan, S. E. of Sinkel, all of a sudden, from 16 fathoms, the lead showed only 6 fathoms, and stones were seen below the ship. Poelo Baberahan then bore N. 17° E., and the coral reef parallel with Poelo Kadang N. 18° W.
652	Matthew's Island.....	2 03 00 N.	173 28 00 W.	2 00 00 N.	173 25 30 E.	N. Y. Tribune, March, 1858..... (Wilkes' Narrative, V, p. 71.)	This is supposed to be a mistake of west instead of east longitude. The Matthew's Island in east longitude, established by Capt. Hudson, of the U. S. Exploring Expedition, is placed alike on all charts.
653	Logan Bank.....	1 56 00 N.	109 01 00 E.	.....	.....	Capt. Logan, of the ship Rob Roy. (Naut. Mag., 1859, p. 606.)	Captain Logan reports having seen off Api Point (west coast of Borneo) the wreck of a vessel on a reef, from which Marundum Island bore N. E. ½ N., Haycock Island N. by W. ½ W., and St. Pierre Island W. ½ S. The British Admiralty chart of the China Sea shows in the position a clear passage of 18 fathoms. No dangers are laid down there on the Dutch charts.
654	Apia, or Charlotte Island.	1 52 30 N.	174 04 40 E.	.....	.....	{ Capt. Moore, of the missionary ship Morning Star. Capt. Hudson, U. S. Expl. Exp'n. (Naut. Mag., 1858, p. 530; Wilkes' Narrative, V, p. 69.)	{ Captain Moore places by observation the missionary house on this group in 174° 04' 40" E., whilst Capt. Hudson places the island in 173° 02'. The entire group being only 15 miles long, there is a discrepancy of an entire degree. Charts generally have it laid down as determined by Capt. Hudson. Capt. Moore also states that there is a much safer entrance to the lagoon 6 miles distant from that reported by Capt. Hudson.
655	Do.....	1 52 00 N.	173 02 00 E.	.....	.....		

656	Reef.....	1 48 30 N.	108 37 00 E.	.....	Dutch reports.....	The Dutch chart of the China Sea, by Lieut. Edeling, Neth. Navy, (1864.) shows a shoal with an interrogatory, where the British Admiralty chart notes 16 fathoms water, without any indication of danger near it.
657	Gallego island.....	1 48 00 N.	08 00 W.	.....	Whaler report.....	The British Admiralty chart of the Pacific Ocean has this island laid down, but Blunt's chart has not.
658	Reef.....	1 45 00 N.	97 30 00 E.	.....	Dutch reports.....	A reef is laid down there on the chart of the west coast of Sumatra, by Lieut. Edeling, Neth. Navy, (1857,) with a query.
659	Chusan Reef.....	1 42 30 N.	118 54 00 E.	.....	Dutch reports.....	This reef is marked doubtful on the chart of Macassar Straits, by Lieut. Edeling, Neth. Navy.
660	Pratt's Shoal.....	1 33 00 N.	107 27 00 E.	.....	Capt. Watkins, of the brig Antelope.	This shoal is not generally laid down on charts.
661	Hughes' Shoal.....	1 31 00 N.	106 15 00 E.	.....	Capt. Hughes, of the Arab brig Bombay Merchant, (Horsburgh, 6th ed., II, p. 295, and 8th ed., II, p. 174; Naut. Mag., 1863, p. 499.)	Breakers reported by Capt. Hughes, close to a 32-fathom cast, bearing S. W., 5 or 6 miles from Victory Island, were searched for, under very favorable circumstances, by Capt. Reid, of H. B. M. surveying steamer Rifleman, and were not found, nor were any indications observed of any other dangers in that vicinity, except a shoal of 3½ fathoms, (low water spring tides,) one-third of a mile long northeast and southwest, and one-quarter of a mile broad, half a mile distant from Victory Island, the latter bearing N. E. ½ E. The breakers of Capt. Hughes have been erased from the principal charts, and the 3½-Fathom Shoal has been placed on the Dutch charts of Edeling, but is not on the British Admiralty chart of the China Sea, corrected up to 1864.
662	Reef near the west coast of Sumatra.	1 28 30 N.	98 24 00 E.	.....	Capt. Stort, of the brig Macassar.. (Ann. Hydr., 1861, III, p. 186.)	A reef, rising abruptly from a depth of 35 fathoms to only 3 feet, probably breaking continuously. From the ship at anchor in 35 fathoms the following bearings were taken: West extremity of Maesalla N. 14° E.; west extremity of Kalimantong N. 51° 30' E.; east extremity of Tembosch N. 59° 30' E.; Poelo Doea S. 89° W.; westernmost mount of Maesalla N. 21° 30' E.; Sugar Bread N. 70° E.; east point of reef N. 56° 15' E.; west angle of reef N. 28° 05' E., 2,375 feet distant. British Admiralty charts mark the position as doubtful.
663	} Three Reefs..... {	1 27 00 N.	124 39 00 E.	}..... {	Dutch reports.....	{ These reefs are marked as uncertain on the Dutch government chart of Celebes, (1855.)
664		1 25 30 N.	124 37 00 E.			
665		1 24 00 N.	124 34 00 E.			

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
666	Congolton's Car.....	0 1 "	0 1 "	0 1 "	0 1 "	{ British Admiralty charts { Dutch governmental charts..... (Naut. Mag., 1847, p. 381; Hors- burgh, 8th ed., II, p. 148, and 6th ed., II, pp. 272 and 845.)	{ Congolton's Car is a dangerous rock near Romania Point, the southeast terminus of the Malay peninsula, on which a number of vessels have been damaged when entering the Straits of Singapore from the northward, and which, it has been recommended, should be marked by a buoy. It has 1½ fathoms over it at low water spring tides, and is situated W. by N. ½ N., 5½ miles distant from the Horsburgh Light-house on Pedro Branca. Navigators will observe that the latest authorities differ in regard to the position of the Pedro Branca light, by which that of Congolton Car and other dangers in its vicinity are laid down on different charts. Horsburgh's Directory (6th edition, of 1852) places the Branca Rock in 1° 20' N., 104° 25' 30" E.; a proclamation of the governor of Singapore, dated Sept. 24, 1851, (and printed in full in the same edition of Horsburgh, p. 845,) states the light-house, then just erected, to be in 1° 20' 20" N., 104° 25' E.; the 8th edition of Horsburgh (1864) places it in 1° 19' N., 104° 25' E.; Raper's tables (1862) place it in 1° 20' N., 104° 23' E.; the Dutch chart of Rhio Straits, by Lieut. Edeling, Neth. Navy, (1863,) places it in 1° 20' N., 104° 25' E.,
667	Diana Shoal.....	1 15 00 N.	104 26 00 E.	.....	.....	{ Dutch governmental chart of the Rioun Archipelago, 1863.	{ The following bearings are given for this shoal, over which 2½ fathoms were found at low water spring tides: North- east extremity of Bintang Island S. 89° E.; Little Bintang Hill S. 13° E.; Barbucit Hill N. 55° W.; Pedro Branca N. 16° W., 6 miles distant.
668	.....	1 13 00 N.	104 27 00 E.	.....	.....	{ British Admiralty chart of the Straits of Singapore, 1864. (Naut. Mag., 1846, p. 93; Hors- burgh, II, p. 148.)	
669	Brakit Rock.....	1 17 00 N	104 37 00 E.	.....	.....	Merc. Mar. Mag., 1861, p 336..... (Horsburgh, II, p. 152.)	Is a cable in length northwest and southeast, one-half a cable broad, with 2 fathoms over it at low water, and 10 to 12 fathoms all around, situated N, N E, ½ E., 2½ miles from Tanjong Brakit, the northeast point of Bintang. This may perhaps be the same rock on which the ship Johns was lost in 1847, instead of on the Postillion Rock, (See next number.)

670 671	Postillion Rock.....	1 15 00 N. 1 13 30 N.	104 33 30 E. 104 34 30 E.				{ Dutch chart of the Rhio Straits... British Admiralty chart of the Singapore Straits. (Naut. Mag., 1847, pp. 331 and 322; Horsburgh, II, 152.)	{ Captain Gazgo, of the ship Johns, reports the following bearings of this danger, hurriedly taken when abandoning the ship: Bintang Hill S. S. W. $\frac{1}{2}$ W., 14 miles distant; and Barbucit Hill W. N. W. $\frac{1}{4}$ W., 23 $\frac{1}{2}$ miles distant. Horsburgh states the rock to be distant from Point Mallang (the northern extremity of Bintang) 1 $\frac{1}{2}$ mile, which does not agree with the above. The rock is said to uncover at low tides, and to have 1 $\frac{1}{2}$ fathom over it at high water, which must be a mistake.
672	Bank	1 12 00 N.	104 09 00 E.				Capt. Pellier, of the ship Archbishop Affre. (Ann. Hydr., VI, p. 11.)	The ship touched off the northeast point of Battam on a coral bank, which extends much further out than indicated on the chart. From the place where the ship touched Mount Barbucit bore N. N. E., and Johore Mount N. 12° W. Late charts place the bank as detached from the reef making out from the point.
673	Europe Shoal.....	1 11 18 N.	107 25 42 E.	1 11 18 N.	107 25 42 E.		Naut. Mag., 1863, p. 323. (Horsburgh, II, p. 173.)	On this shoal (which extends about 1 mile north by east and south by west) Horsburgh reports the least water to be 2 $\frac{1}{2}$ fathoms, whilst Capt. Reid, of H. B. M. surveying vessel Rifleman, could only find a single shoal spot of 3 fathoms at low water spring tides, from which he gives the follow- ing bearings: Rocky Islet S. 85° 13' W.; Gap Rock N. 79° 25' E.; the apex of Pulo Iray S. 17° 31' W.; the right extremity of the Tambelans S. 19° W., and the left of the same S. 44° 17' E.
674	Atlantic Island.....	1 10 00 N.	164 57 00 E.				Whaler report.....	This island appears to have been seen only once, (in 1827,) and its existence and position require confirmation. Charts generally give it a position.
675	Rock.....	1 05 00 N.	120 05 00 E.				Dutch report.....	A doubtful rock is shown there in the chart of Macassar Straits, by Lieut. Edeling, Neth. Navy, of 1860.
676 677 678	Greenwich Island..... Do..... Do.....	1 05 00 N. 0 58 51 N. 1 04 00 N.	154 30 00 E. 154 47 50 E. 154 45 00 E.	} 1 03 00 N.	154 41 00 E.		{ Naut. Mag., 1852, p. 226..... French corvette Constantin..... Capt. Symington, of the ship Northfleet. (Naut. Mag., 1865, p. 226; Merc. Mar. Mag., 1865, p. 163.)	{ This atoll (a late discovery) is placed as a doubtful island on most charts. Capt. Symington (who reports to have examined the place during four days) describes it as a coral lagoon, consisting of 26 islets, a few feet above water, covered with cocoanut trees, with a reef extending west- northwest to a distance of 5 miles. It is not inhabited.
679	Reef.....	1 00 00 N.	179 24 00 E.				China Mail	Is laid down, with a query, on most of the charts.
680	Bank	0 55 15 N.	104 51 30 E.				Commander Stanton, of H. B. M. Navy. (Merc. Mar. Mag., 1861, p. 334.)	A coral bank, with 3 to 5 fathoms water over it, and about 1 mile in extent, with Pulo Reeg bearing E. N. E., distant 5 $\frac{1}{2}$ miles; Pulo Borean or Saddle Island, bearing S. S. W., clears the ea-tern side of it. It is a new discovery, and has been placed on English and Dutch charts.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
681	Shoal.....	0 53 00 N. 0 53 00 N.	107 29 00 E. 0 53 00 E.	0 53 00 N. 0 53 00 N.	0 53 00 E. 0 53 00 E.	Commander Reed, of H. B. M. Navy. (Naut. Mag., 1863, p. 216)	Searching for the Constance Shoal (which was reported to be 1½ mile south of large Jarrang) Capt. Reed found a coral shoal off the southwest end of little Jarrang, which he believes is the shoal which the Constance saw and placed erroneously. The shoalest patch of a mile distant (3 fathoms) bears N. 68 W., nine-tenths of a mile distant from the southwest end of little Jarrang, and extends from there southeast by east three-quarters of a mile, the depth of water varying from 4 to 9 fathoms. Tambelan (highest peak) on with the right extremity of Harbor Island clears it half a mile to the westward, and White Rock kept well open of the right extremity of large Jarrang clears the danger to the southward. There are from 17 to 20 fathoms water between this shoal and little Jarrang.
682	Reef.....(about)	0 53 00 N.	97 21 00 E.	0 53 00 N.	97 21 00 E.	Capt. Classer, of the Neth. war steamer Reimer. (Ann. Hydr., XXVII, p. 239.)	A reef about three-quarters of a mile east by south from the southwest coast of Nako Island; is a late discovery. It is not laid down on any chart.
683	Reef west coast of Sumatra.	0 52 00 N.	97 22 00 E.	0 52 00 N.	97 22 00 E.	Capt. Bernhard, of the Neth. war steamer Hertog. (Ann. Hydr., XXVII, p. 239.)	Bare at low water; 2½ miles S. 37° E. from the south point of Nako Island. A late discovery.
684	Karang Lawe Shoal..	0 52 00 N.		0 52 00 N.		Lieut. Wooderman, Neth. Navy.. (Merc. Mar. Mag., 1858, p. 182.)	A reef, not more minutely described, is laid down on Dutch and English Admiralty charts; on the latter with a query.
685	Howland Island.....	1 00 00 N.	176 50 00 W.	1 00 00 N.	176 50 00 W.	{ San Francisco Herald, 1851..... San Francisco Herald, 1851..... China Mail..... N. Y. Tribune, 1858..... Capt. Eldridge, 1859..... J. D. Hague..... Capt. Patty, 1858..... American papers..... (Naut. Mag., 1860, p. 444; Merc. Mar. Mag., 1865, p. 69.)	{ All these positions are given to a guano island, probably first seen by Capt. George E. Netcher, of New Bedford, in 1842, and said to be claimed by the U. S. Guano Co. of New York. It is about 2 miles long by 1 mile broad, of coral formation, almost covered with a deposit of bird excrement, and has a tolerably good landing-place on the west side of it. In 1858 a hut stood upon it, with a flag-staff. Holland Island must not be confounded with Baker's Island or New Nantucket, some 35 miles to the southward, (see No. 721.) On some charts there is shown, in addition, a Howland Island, 0° 15' N., 177° 18' W., mentioned by Horsburgh, (II, p. 803,) which is doubtless identical with Baker's Island.
686	Do.....	1 00 00 N.	176 20 00 W.	1 00 00 N.	176 20 00 W.		
687	An Island.....	0 41 00 N.	176 20 00 W.	0 41 00 N.	176 20 00 W.		
688	Holland Island.....	0 50 00 N.	176 52 00 W.	0 50 00 N.	176 52 00 W.		
689	New Island.....	0 45 00 N.	176 35 00 W.	0 45 00 N.	176 35 00 W.		
690	Howland Island.....	0 51 00 N.	176 32 00 W.	0 51 00 N.	176 32 00 W.		
691	Do.....	.....	.....	.....	.....		
692	Do.....	0 43 00 N.	176 30 00 W.	0 43 00 N.	176 30 00 W.		
693	Faguin Islands.....	0 46 00 N.	171 59 00 W.	0 46 00 N.	171 59 00 W.	Whaler report.....	{ Are surely Holland and Baker's Islands, placed erroneously 5 degrees too far east.
694	and	0 11 00 N.	171 55 00 W.	0 11 00 N.	171 55 00 W.		

(Heretofore this danger has been laid down as doubtful, and 4 fathoms were marked over it. Commander Stanton, of H. B. M. ship Sarazen, carried only 2 fathoms water over coral bottom. Pulo Borean, or Saddle Island, bears from it W. by N. $\frac{1}{2}$ N., 5 miles distant, and Pulo Ruig N. by E., 11 miles.

(Captain Winchester, of the ship Coral Nymph, reports: " December 27, 1865, saw in this position a rock under the ship; sounded in 12, 14, 15, and 19 fathoms, and then had no bottom in 40 fathoms. The island of Syang was visible from the cross-jack yard, bearing S. S. E. Steered east 16 miles from that position; the ship then commenced to roll heavily, being influenced by a ground swell; sounded in 10, 12, and on to 25 fathoms, and no bottom at 40 fathoms." The first is a new discovery; the second is evidently the Ormsbee Shoal, according to Capt. Ormsbee extending from $0^{\circ} 42'$ to $0^{\circ} 46'$ N., on the meridian of $130^{\circ} 04'$ E. Capt. Winchester is of the opinion that there were not more than 5 or 6 fathoms water when the rocks were first seen, and that ships should keep Syang Island well in sight from the deck, if possible, to clear these patches, which may have dangers on them. The Nautical Magazine recommends ships bound to and from the Gilolo passage to keep below $0^{\circ} 35'$ N., (a typographical error makes it read 35° N.,) until past the meridian of 130° E., when going eastward.

(This shoal, marked previously with 7 and 9 fathoms water over it, has been found by Commander Stanton, of H. B. M. ship Sarazen, to carry only 2 fathoms over coral and sand. It is 1 mile in length and one-half a mile in width, and from its centre Pulo Borean bears N. W. $\frac{1}{2}$ N., distant $4\frac{1}{2}$ miles. Several other knolls, with 4 and 5 fathoms over them, lie between this shoal and Geldria Bank, of which they are considered a continuation. Pulo Serobi, the southern islet of Pulo Gin, bearing W. $\frac{1}{4}$ S., clears the south extremity, and the Boat Rocks, in line with Pulo Borean or Saddle Island, W. by S. $\frac{3}{4}$ S., or Pulo Ruig, N. N. W. $\frac{1}{4}$ W., clears the north extremity.

This very dangerous rock, on which the Ellen struck and was damaged, has only 3 feet over it at low water spring tides, and is about 100 yards square. Capt. Reed, of the British surveying steamer Rifleman, in searching for it for four days, passed it several times very close to, and ultimately found it only by the tide and wind being opposite, causing a slight ripple. The bearings from it are: Tambelan Peak seen on the right apex of large Jarang, N. $1^{\circ} 30'$ E., 11 miles; Green Island N. $81^{\circ} 24'$ W.; the left extremity of the Tamelans N. $30^{\circ} 20'$ W.; and the right extremity of the same N. 11° E. The report of Capt. Reed in the Nautical Magazine gives $0^{\circ} 43' 06''$ N. as latitude, whilst Horsburgh and the charts place it in $0^{\circ} 41' 15''$ N.

695	Raleigh Rock.....	0 47 00 N. 0 46 00 N.	104 54 30 E. 104 54 30 E.	..... .....	British Admiralty charts..... Dutch governmental charts..... (Merc. Mar. Mag., 1861, p. 334.)
696	.....	.....	.....	.....	.....
697	Ormsbee Bank.....	0 42 00 N.	130 00 00 E.	.....	Naut. Mag., 1866, p. 220.....
698	Winchester Shoal.....	0 42 00 N.	129 44 30 E.	.....	Merc. Mar. Mag., 1866, p. 122..... (Horsburgh, II, p. 614.)
699	Bank	0 45 00 N.	105 52 00 E.	.....	English charts.....
700	.....	0 44 00 N.	105 52 00 E.	.....	Dutch charts..... (Merc. Mar. Mag., 1861, p. 335.)
701	Rodger or Ellen Rock.	0 40 00 N.	107 34 00 E.	0 41 25 N. or 0 43 06 N.	Capt. Rodgers, of the bark Ellen.. (Naut. Mag., 1846, p. 211, and 1863, p. 216; Horsburgh, II, p. 173.)

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
702	Frederic VI Shoal.. {	0 36 00 N.	105 17 30 E.	0 36 00 N.	105 17 00 E.	{ Capt. of the ship Frederic VI.--- Master of H. B. M. ship Spiteful.. Capt. of the brig John Baghen... (Naut. Mag., 1847, pp. 39 and 204.)	(For all these reported dangers Horsburgh's Directory and the most recent English and Dutch charts show only one reef, named by the two former Frederick. and by the latter Stellingwerf Reef, in 0° 38' N., 105° 10' E. The original Frederic VI Reef, the most dangerous of them, has either escaped notice, or has, with No. 703, been rejected as identical with the adopted position, (704.) A close examination of the reports leaves little doubt of the existence of three different dangers, separated from each other by miles of deep water. The ship Frederic VI, in 1846, ran upon a reef in the fairway of vessels bound to the east and south from Singapore, and had to be abandoned. A British naval vessel was sent from Hong-Kong expressly for the purpose of establishing this new and important danger; and numerous observations by the master of this ship, taken on the decks of the wreck during two days, placed it in 0° 36' N., 105° 18' E. Although obtained in a hazy atmosphere, these sights cannot be much out, as they only differ 2' arc from the determination by the master of the wrecked vessel, and 4' from that of a passing vessel. The shoal is described as a round patch of soft coral, about 3 cables' length in diameter, with a rock in the centre <i>with not more than 2 fathoms water on it</i> , gradually deepening to 3 and 4 fathoms a cable's length all around, then rapidly to 5, 7, 9, 11, and 17 fathoms water. High land was seen from the wreck about S. W., and at times islands like specks appeared W. N. W. The shoal discovered by Commander Stanton is <i>awash</i> at low springs, and consists of 2 rocks, about a cable's length apart, near the middle of a coral bank, 3 cables in length north and south, and nearly 2 cables in breadth, <i>having 20 to 22 fathoms all around</i> , except on the northeast side, where irregular soundings, from 10 to 13 fathoms, extend half a mile from it. From the centre of this reef Pulo Ruig or Ragged Island bore N. W. $\frac{1}{2}$ N., and Pulo Borean or Saddle Island W. N. W.
		0 36 00 N.	105 18 00 E.				
		0 36 00 N.	105 15 00 E.				
703	Stellingwerf Reef.. {	0 36 30 N.	105 04 30 E.	0 36 38 N.	105 03 45 E.	{ Dutch schooner Admiral Van Stellingwerf. Capt. Peillon, of the ship Eagle.. (Merc. Mar. Mag., 1858, p. 183; Ann. Hydr., XIII, p. 292.)	
		0 36 45 N.	105 03 00 E.				
704	Frederic Reef..... (better, Stanton Reef.)	0 39 04 N.	105 10 00 E.	0 39 04 N.	105 10 00 E.	Comdr. Stanton, British Navy..... (Merc. Mar. Mag., 1861, p. 335; Horsburgh, II, p. 60.)	
705	Sand Bank.....	0 30 00 N.	104 41 00 E.	.....	.....	Merc. Mar. Mag., 1861, p. 335; Horsburgh, II, p. 60.	A bank, having 7 and 9 fathoms water over it, lies S. S. E., 16 miles from Pulo Gin, and runs 17 miles north-northeast and south-southwest. At the north end of the bank Pulo

Ruig bears N. N. W. $\frac{1}{4}$ W., which course (Comdr. Stanton says and Horsburgh adopts) clears also the Geldria and the Frederick Reefs of the British Admiralty; but navigators must remember that this course leads directly to the Stellingwerf Reef, which is not on the chart.

A reef, without further description—Karakara bearing E. N. E. $\frac{1}{4}$ E., and Oedj Tocan S. E. $\frac{3}{4}$ E.—is shown on the Dutch chart of the west coast of Sumatra, by Lieut. Edeling, 1857, in $98^{\circ} 49' 30''$ E., as a reported danger.

No danger is shown there on charts.

A shoal, seen 1858, four miles S. by E. from the southwest-ernmost St. Esprit Island, was searched for by Capt. Reed, of the Rifleman, and has been erased from the British Admiralty, but retained by Dutch charts, with a query.

Not laid down on charts.

No danger is shown on charts at this place. A doubtful reef is laid down on Blunt's chart in $1^{\circ} 00'$ N., $179^{\circ} 30'$ E., and in the British Admiralty chart to the southeast of Blunt's position.

Four cables in circumference, with $2\frac{1}{2}$ fathoms water on it—Goenong Karakara bearing N. E. $\frac{3}{4}$ N., the east extremity of Pinie Island S. $\frac{1}{4}$ W., and Goenong Laboean Loeloe E. S. E. $\frac{1}{4}$ E. Discolored water was distinctly seen, about 1 mile distant, to the northeast of this reef.

No island laid down there on charts; probably it is Jarvis Island, which is on about the same meridian and the same parallel, but south of the equator.

Admiral Krusenstern considered these islands very doubtful; but the existence of an island (Tamana) in this vicinity of the Kingsmill group was reported to Lieut. Wilkes by natives of that group. Commander Sinclair, of the U. S. ship Vandalia, could not find it; and Mr. Foster, chief mate of the bark-Jamaica, reports that, trading between the Kingsmill group from 1842 to 1844, he shaped his course 20 or more different times from Byron Island for the reported island, and never succeeded in finding it. It is doubtless a transposition of the Baker Island (see next) from west into east longitude. The British Admiralty chart omits the islands; Blunt's chart shows Phœbe.

706	Reef.....	0 30 00 N.	98 48 00 E.	Lieut. Modderman, Neth. Navy... (Merc. Mar. Mag., 1858, p. 182.)
707	Perkin's Shoal.....	0 30 00 N.	129 18 00 E.	Salem Gazette.....
708	Howqua Shoal.....	0 29 15 N.	107 00 45 E.	Ann. Hydr., 1862, IV, p. 561.....
709	New Market Island..	0 22 00 N.	174 40 00 W.	Capt. Pritchard, consul at Apia....
710	Reef.....	0 21 00 N.	179 20 00 W.	Capt. Pritchard, consul at Apia....
711	Coral Reef.....	0 20 00 N.	98 53 00 E.	Lieut. P. Van Blejswick-Ris, Neth. Navy. (Merc. Mar. Mag., 1858, p. 182.)
712	Island.....	0 17 00 N.	160 20 00 W.	Whaler report.....
713	Tamana Island.....	0 15 00 N.	176 46 00 E.	Reynold's Memoir.....
714	Phœbe Island.....	0 12 00 N.	176 00 00 E.	Many charts..... (Naut. Mag., 1854, p. 111; Wilkes' Narr., V, p. 80; Findlay, II, p. 1055.)

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
715	Phœbe Island.....	0 12 00 N.	0 17 00 W.	0 12 00 N.	0 17 00 W.	(Mr. H. Foster, of bark Jamaica... China Mail..... Capt. Dufour, of the ship Faure... San Francisco Herald, 1851..... San Francisco Herald, 1851..... New York Tribune, 1858..... Capt. J. D. Hague..... (Merc. Mar. Mag., 1865, p. 68.) Horsburgh, II, p. 803..... Commission for correction of Dutch sea charts. (Ann. Hydr., 1861, III, p. 186.)	{ Although descriptions are not given with these reports, or at least are not at hand. they, without any doubt, refer to one and the same island, situated about 35 miles south of the Howland Island, (No. 690;) and these two islands are the only ones in existence near this vicinity, although some charts have one or two additional—for instance, the Howland Island of Horsburgh, (see next.)
716	New Nantucket.....	0 11 00 N.	176 20 00 W.	0 11 00 N.	176 20 00 W.		
717	New Nantucket.....	0 11 00 N.	176 22 00 W.	0 11 00 N.	176 22 00 W.		
718	Phœbe Island.....	0 20 00 N.	176 20 00 W.	0 15 00 N.	176 22 00 W.		
719	Phœbe Island.....	0 20 00 N.	176 59 00 W.	0 15 00 N.	176 21 00 W.		
720	Baker Island.....	0 15 00 N.	176 21 00 W.	0 15 00 N.	176 21 00 W.		
721	Baker Island.....	0 13 00 N.	176 22 00 W.	0 13 00 N.	176 22 00 W.		
722	Howland Island.....	0 15 00 N.	177 18 00 W.	0 15 00 N.	177 18 00 W.	See above, and No. 690.	
723	Macassar Reef.....	0 06 00 N.	99 15 00 E.	0 06 00 N.	99 15 00 E.	Reef, with 15 feet water on it, 4 cables in extent northeast and southwest, with 17 fathoms all around, indicated by discoloration and, when there is a breeze, by breakers. From the ship at anchor, in 17 fathoms, Poelo Pangka bore N. 65° 30' E.; Poelo Tello N. 83° 40' E.; Goenong Sikabouw N. 72° E.; Oenong Tocan N. 31° 40' W.; Goenong Ragonzla N. 0° 30' E.; and the middle of the reef N. 7° 50' W., 1,745 feet distant.	
724	Crocodile Rock.....	0 01 00 N.	104 54 30 E.	0 01 00 N.	104 54 30 E.	Merc. Mar. Mag., 1857, p. 368; Horsburgh, II, p. 51.	According to Horsburgh's Directory and to this report, the Crocodile Rock, 15 feet above water, and bearing N. E. $\frac{1}{2}$ N., 4 miles from a conspicuous conical hill on the northeast part of the Great Dominoe, is situated in 0° 01' N., 104° 54' 30" E.; whilst the British Admiralty chart of the China Sea (1864) places it in 104° 51' E., and Dutch charts in 104° 52' 45" E.
725	Reef.....	0 00 00	150 00 00 W.	0 00 00	150 00 00 W.	China Mail.....	No danger is generally shown there on charts.
726	Washington Island....	0 00 00	159 39 00 W.	0 00 00	159 39 00 W.	China Mail.....	Is undoubtedly the Jarvis Island, generally placed 30 miles southwest of this position.
727	Starbuck's Group.....	0 00 00	178 30 00 E.	0 00 00	178 30 00 E.	China Mail.....	Is laid down on Blunt's chart, but not on the British Admiralty. The group in this position is most probably the creation of a typographical error, (178° 30' for 173° 30'.) See next number.
728	Starbuck's Group.....	0 00 00	173 30 00 E.	0 11 00 N.	173 39 20 E.	China Mail..... (Wilkes' Narr., V, p. 63; Findlay, II, p. 993.)	This is no doubt the well known Henderville or Nanouki Island, of the Gilbert Archipelago, in 0° 11' N., 173° 39' 20" E.

729	Drummond Island, with Nautilus Shoal.	0 00 00	174 50 00 E.	0 30 00 S.	174 20 00 E.	China Mail..... (Wilkes' Narr., V, p. 62.)	This island is the Nanouti or Sydenham Island of most charts and directories, and has been well examined by Capt. Hudson, of the U. S. Exploring Expedition. The Nautilus Shoal (named so by Capt. Bass, of the ship Nautilus) is the coral bank, with 9 fathoms water over it, extending from the northwest point of the island 1½ mile beyond the reef which makes out from this point.
730	Island.....	0 00 00	165 33 00 E.	.....	.....	China Mail.....	No island is laid down in this position on charts.
731	Reef.....	0 06 30 S.	99 26 00 E.	.....	.....	Dutch Commission for correction of sea charts. (Ann. Hydr., 1861, III, p. 186.)	A reef, 3¼ cables long from east to west, with 15 feet water on its centre, 7 to 9½ fathoms on its south end, 5 to 6 fathoms on its eastern extremity, and 23 fathoms all around. From the ship, at anchor in 23 fathoms near the reef, Poelo Tello bore N. 12° W., Poelo Pandjang N. 20° W., Poelo Pangkanan N. 28° W., Goenong Sikabouw N. 0° 50' W., summit of Goenong Ophir N. 73° 50' E., and the reef N. 9° 30' E., distant 1,875 feet. It is noted as a reported danger in official charts.
732	Shoal.....	0 06 00 S.	105 10 00 E.	.....	.....	Captain Glover, of the ship Flora Muir. (Merc. Mar. Mag., 1854, p. 37.)	When the Peaked Domino bore W. by S. ½ S., and the east point of Lingga S. W. ½ S., the Flora Muir passed the hull of a vessel lying on her broadside, apparently bilged on a rock, the wreck bearing from the ship S. by W. ½ W., 12 miles distant from the east end of Lingga. The report is not clear—it places a danger where none is marked on charts.
733	Coral Reef, south of Lingga Island.	0 16 00 S.	104 38 00 E.	0 16 00 S.	104 38 00 E.	Commission for correction of sea charts. (Ann. Hydr., 1864, II, p. 504.)	Reef, with 5 feet water over it, with the following bearings: western extremity of Bongon W. by N., Lingga Peak N. W. ½ N., Kolomboe Island N. 17° W., Antoe Island N. E. by E. One hundred and sixty-four feet north-northeast of this reef a rock rises to 3 feet above the water. These dangers are not laid down on the charts.
734	Bank, south of Lingga Island.	0 16 15 S.	104 36 00 E.	0 16 15 S.	104 36 00 E.	Same authority..... (Ann. Hydr., XIII, p. 298.)	The Netherlands brig-of-war Egmont discovered a bank with only 2 feet water over it, Pulo Badar and Pulo Mapar in range bearing N. 14° 30' W., and the south point of Puloe Kolomboe N. 59° 15' E. The chart of the Lingga Archipelago, by Lieut. Edeling, (Neth. Navy, 1863,) places the bank with 2 fathoms water over it.
735	Shoal, south of Lingga Island.	0 19 00 S.	104 25 15 E.	0 19 00 S.	104 25 15 E.	Capt. R. L. de Hals, of the Neth. steamer Merapi. (Ann. Hydr., 1861, III, p. 187.)	Reef, in Penoeboe Straits, with 3, 9, and 15 feet water over it, on the following bearings: Iron Rocks S. 37° 30' E., northeast point of the Straits N. 77° 30' E., southwest point of Poelo Penoeboe N. 23° W., Pandan Isle N. 32° 40' W., and Tanjong Lambilang N. 86° W. The above-mentioned chart shows this danger, with a number of others, with which these straits seem to abound.
73	Reef.....	0 21 00 S.	179 20 00 W.	.....	.....	Capt. Pritchard, U. S. Consul.....	Is not laid down on charts.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
737	Jarvis or Bunker Island.	0 1 "	0 1 "	0 1 "	0 1 "	{ (Capt. Brown, of the ship <i>Eliza Francis</i> . { Com. Wilkes, U. S. Expl. Exp'n. New York Tribune, 1858..... Capt. Hague..... (Merc. Mar. Mag., 1865, p. 71; Wilkes' Narr., V, p. 4; Findlay's South Pacific Directory, p. 594.)	{ The descriptions given with these reports concur so entirely that the identity of the positions to which they refer would seem to be certain. Jarvis Island, discovered by Capt. Brown, is a coral island, triangular in shape, extending 1½ mile east and west, and 1 mile north and south, 12 feet high, with a few patches of grass on it. The sea breaks violently around it, but no reef extends to any great distance. It is generally laid down correctly on the charts.
738	Do.....	0 23 00 S.	159 46 00 W.	{	{		
739	Do.....	0 22 33 S.	159 54 00 W.				
740	Do.....	0 21 00 S.	159 52 00 W.				
		0 22 00 S.	159 58 00 W.				
741	Pleasant Island.....	0 25 00 S.	167 10 00 E.	{	{	{ (Capt. Fearn, in 1798..... Capt. Cheyne..... Capt. Smith..... Capt. Simpson, of ship <i>Giraffe</i> Capt. Brown, of ship <i>Nightingale</i> . (Naut. Mag., 1848, p. 577; 1862, p. 358, and 1865, p. 230; Findlay's South Pacific Directory, p. 600; Horsburgh, II, p. 802.)	{ By some authorities, this island (discovered by Captain Fearn) is placed too far east, (Raper has it in 167° 20', Blunt's chart 167° 35',) and being rather low, (visible from aloft about 7 leagues,) such an error might lead to serious consequences. A fringing reef projects from the shore about 200 yards all around the island, which has neither a harbor nor an anchorage. The inhabitants are said to be treacherous.
	Do.....	0 25 00 S.	167 05 00 E.				
742	Do.....	0 25 00 S.	167 20 00 E.				
743	Do.....	0 35 00 S.	166 50 00 E.				
		0 25 00 S.	166 58 00 E.				
744	Cowman Bank.....	0 31 36 S.	105 06 30 E.	.....	.....	Com'r Stanton, Brit. Navy..... (Merc. Mar. Mag., 1862, p. 77.)	This bank, said to lie 6½ miles N. E. by N. of the <i>Castor</i> Bank, was searched for unsuccessfully, and even fishermen do not believe in its existence. It is not laid down on English and Dutch charts.
745	Group of islands, from to	0 37 00 S. 4 26 00 S.	158 38 00 E. 158 48 00 E.	{ }		Whaler report, communicated by Capt. Sprague, of the ship <i>Mercator</i> .	There is neither a group nor a single island or danger shown by any authority within a great distance around this position; the existence of an entire group there is very improbable.
746	Coral Reef, in Damien Straits.	0 38 00 S.	130 43 00 E.	.....	.....	Capt. McKellar, of the ship <i>Sophia</i> Frazer. (Naut. Mag., 1851, p. 42.)	The log-book of this ship says: "Grounded suddenly on a small coral reef, that appears detached from Pigeon Island, 6 miles E. by N. from the same. On one side of the vessel the jolly-boat could not float, and on the other side we had 8 fathoms; under the bow 2 fathoms; let go the anchor, when she instantly tailed off to the southward; veered out 8 fathoms cable, and had 57 fathoms water. Bearings taken when aground: west extreme of King William Island N. W. by W. ½ W.; Pigeon Island, just visible, well open to the west end of King William's

Island; Hump Island N. by E. $\frac{1}{2}$ E., and Foul Island S. S. E." These bearings do not agree well within themselves, and, if correct, show defects in the Dutch chart of the Molucca Islands, by Lieut. Gregory, Neth. Navy, on which the bearings approximately place the ship over a bank with not less than 6 fathoms.

The Dutch war steamer Padang discovered a sand-bank a little above water, visible a good distance off, in $0^{\circ} 48' S.$, $118^{\circ} 21' E.$, (as the Annales Hydrographiques have it,) which the discoverer thinks may be the "Trinder Bank," 12 to 16 miles out of its reported position. The Trinder Bank, seen by Captain Trinder, of the brig Amboina, is said to be in $2^{\circ} 59' S.$, 42 miles N. W. by N. from Cape Mandhar; consequently, the reef seen by the Padang should differ in latitude only 10 to 12 miles from $2^{\circ} 59'$; and the reported latitude, $0^{\circ} 48' S.$, (reprinted so in Horsburgh's Directory,) is most probably a typographical error for $2^{\circ} 48' S.$, (near which the bank is marked, in place of the Trinder Bank, on the chart of Macassar Straits, by Lieut. Edeling, Neth. Navy, 1860,) while neither English nor Dutch charts place it in the reported position. (See No. 852.)

This island, described to be of circular form, high in the centre, steep to, the approach clear of all hidden dangers, 10 or 15 miles in circumference, and well inhabited, is placed by different authorities coinciding in latitude, but ranging more than 120 miles in longitude. Most probably about $169^{\circ} 45'$ is the correct meridian. The island of Dutailis and that of Captain Palmer may not be the same as that of the others, but this is doubtful; a research on this parallel from the easternmost position up to Pleasant Island will clear the doubt. Blunt's chart places only one island in $170^{\circ} 50'$, and the British Admiralty only one in $169^{\circ} 49' E.$

A reef placed on the Dutch chart of the Padang Islands by Lieut. Edeling, Neth. Navy, 1861, around which for a great distance no bottom is shown at 100 fathoms, appears to be doubtful. Numerous reefs, apparently not fully established, are placed closer in shore, and navigators are advised to keep a bright lookout in this vicinity.

Laid down on many charts; on the British Admiralty's with a (?).

Not shown on charts. Blunt's chart has a reef, noted with a (?), in $1^{\circ} 00' N.$ on this meridian.

747	Sand-bank	0 48 00 S.	118 21 00 E.	2 48 00 S.	118 21 00 E.	Adm. Bouricius, Neth. Navy..... (Ann. Hydr., XIII; Horsburgh, II, p. 551.)
748	Ocean or Punapa	0 50 00 S.	145 45 00 E.	} 0 50 00 S.	169 47 00 E.	{ Capt. Smith Capt. Cheyne..... Dutailis' Ann. Hydr..... Capt. Sprague, of ship Mercator. Capt. Palmer, of ship King Fisher. (Naut. Mag., 1848, p. 578; 1862, p. 358; Findlay's South Pac. Dir'y, p. 600.)
749	Island.	0 48 00 S.	169 49 00 E.			
750	.....	0 52 02 S.	168 24 25 E.			
751	.....	0 52 00 S.	169 45 00 E.			
	.....	0 48 00 S.	170 49 00 E.			
752	Reef.....	0 56 00 S.	99 57 00 E.	.....	.....	Dutch reports.....
753	Island.....	1 00 00 S.	139 00 00 W.	.....	.....	Whaler report.....
754	Reef and Group.....	1 00 00 S.	179 24 00 E.	.....	.....	Whaler report.....

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
755	Smith Bank.....	0 1 " 1 04 00 S.	0 1 " 104 58 00 E.	0 1 "	0 1 "	Merc. Mar. Mag., 1862, p. 77.....	The Saracen (Master Comd'g Stanton, H. B. M. Navy) anchored upon the supposed position of this bank, S. $\frac{1}{4}$ E., 20 miles distant from Pulo Taya, and sounded in every direction—10 miles north, 4 miles south, and southeast and west; the soundings were regular, from 7 to 9 fathoms, and no indication of the existence of a bank was seen.
756	Coral Reef	1 04 00 S.	129 03 00 E.			Mauricien (Naut. Mag., 1847, p. 319.)	A dangerous reef in the Gilolo Passage, with only 20 feet over it, Boo Islands bearing about E. by S., and Pulo Passang south. Near this position the chart of the Molucca Islands (by Lieut. Gregory, Neth. Navy, 1847) exhibits the Duke Shoal in 1° 10' S., 128° 55' E.
757	Shoal, 13 feet.....	1 09 00 S.	106 44 00 E.			Capt. Hawkins, 1849 Clipper ship Wild Pigeon..... Capt. Vega, 1826 Ship Deva Capt. Ingram, 1831..... Mr. Harris, 1831 New York Herald, 1850..... New York Herald, 1850..... (Naut. Mag., 1850, p. 185; Horsburgh, II, p. 42.)	From the absence of more recent accounts by a professional hydrographer, it is difficult to decide whether all these reports refer to one and the same shoal, or to different patches in this vicinity. The first discovery of a danger in this vicinity was by Capt. Vega, whose ship (the Spanish frigate Velos) grounded there, and who describes the shoal on which she struck as of not more than a ship's length in extent, with from 22 to 18 feet of water over it, close to soundings of 9, 11, 17, and 22 fathoms. The only other detailed account is given by Capt. Hawkins, who takes pains to show that his observations are correct. His ship struck also, but did not stick fast. He anchored, and examined the shoal from a boat, and found it to extend northeast and southwest about half a mile, showing large rocks within 13 and 15 feet of the surface of the water, with 3 and 4 fathoms between them, and soundings, as given by Vega, all around. The only difference between these accounts is the extent of the danger; the others vary more in depth, but this difference may be accounted for by the tides.
758	Do.....	1 12 00 S.	106 42 00 E.	.....	.....		
759	Do., 18 feet.....	1 09 00 S.	106 34 00 E.	.....	.....		
760	Do., 19 feet.....	1 08 00 S.	106 51 00 E.	.....	.....		
761	Do., 9 feet.....	1 06 00 S.	106 31 00 E.	.....	.....		
762	Do., 9 feet.....	1 04 00 S.	106 37 00 E.	.....	.....		
763	Do.....	1 04 00 S.	106 47 00 E.	.....	.....		
764	Do.....	1 04 00 S.	106 43 00 E.	.....	.....		
765	Crescent Reef.....	1 10 00 S.	108 38 00 E.			Horsburgh, II, p. 536.....	The Dutch chart of the China Sea, by Lieut. Edeling, has this reef on it, with a (?), a couple of miles more to the eastward.
766	Bahia Reef.....	1 10 00 S.	126 50 00 E.			Ann. Hydr., XVI, p. 10.....	The ship Bahia struck and dragged heavily over a coral reef, with only 15 feet water on it, between Maregoland and Lissa Matoula, in the Molucca channel. Only very late charts show this danger.

767 768	Brocke Island..... Do.....	1 10 00 S. 1 13 00 S.	159 40 00 W. 159 30 00 W.	..... .....	Wilkes' Narr., V, p. 4..... Findlay's South Pacific Directory, p. 594.	{ The U. S. Exploring Expedition searched carefully for this island (which is still shown by many charts) without finding any indication of it.
769	Bank in the Gilo Passage.	1 10 00 S.	129 15 00 E.	.....	Naut. Mag., 1863, p. 172.....	The seventh edition of Horsburgh's Directory, II, p. 718, mentions a dangerous coral bank, having 3½ fathoms upon it, extending east and west 2 miles, Boo Island bearing E. by S., 24 miles, and Pulo Pisang S. S. W. Commander Trollope, of H. B. M. ship Melville, searched without finding it, with Pulo Passang S. 40° W. The Boo Island bearing E. by S., 24 miles, would bring Pulo Passang to bear south; therefore, the reef of Horsburgh is that enu- merated 756.
770	Reef on the west coast of Sumatra.	1 12 00 S.	100 15 30 E.	.....	Dutch Commission for the correc- tion of sea charts.	Discovered by the Neth. steamship Padang, 4 ships' lengths in extent, with a depth of 14 and 15 feet, Pulo Muskets bearing S. E. by S., and Karang Laut W. N. W. ½ W. It is not generally shown on charts.
771	Reef.....	1 13 00 S.	159 45 00 W.	.....	{ China Mail..... Wilkes' Narr., V, p. 4.....	{ Generally placed on charts in 1° 30' S., but could not be found by the U. S. Exploring Expedition.
772	Reefs.....	1 16 00 S.	106 50 00 E.	.....	Capt. Palmer, of the American ship Celestial. (Naut. Mag., 1855, p. 676.)	Sounded in 3 fathoms; a shoal close by showed less water. This reef may be the Vega Shoal, or one of the group, if there is such, (see 757 to 764.) Charts show it as a reported separate patch.
773	Reef.....	1 14 00 S.	100 13 00 E.	.....	Dutch report.....	Laid down on the Dutch chart of Padang, by Lieut. Edeling, with a (?).
774	Governor Shoal.....	1 20 00 S.	120 21 00 E.	.....	Salem Gazette.....	The position of this shoal is reported erroneously; that po- sition would place it in the interior of Celebes.
775	Wellesley Shoal.....	1 18 00 S.	108 24 00 E. 108 34 45 E.	..... .....	Dutch reports..... Horsburgh, II, p. 536.....	{ The Dutch chart of the Java Sea, by Smits and Melville of Carnbee, (1861,) has the Wellesley Shoal on it, (3 feet,) with a (?), 10 miles different from Horsburgh, who states its distance from the Lema Islands as being 19 miles.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
		0 1 "	0 1 "	0 1 "	0 1 "		
776	Byron Island or Nukunan.	1 25 00 S. 1 21 00 S.	176 45 00 E. 176 34 00 E. 176 35 00 E.	1 23 00 S.	176 38 00 E.	{ Capt. Lord Byron Capt. Sprague, of ship <i>Mercator</i> .. Capt. Handy	The U. S. Exploring Expedition examined and surveyed the following ten islands of the Gilbert Archipelago: Maraki or Matthew's Island; Makin and Taritari or Pitt Island (called Butaritari or Tuckong by others); Apia or Charlotte Island; Tarawa or Knox Island; Malana or Hall's Island; Apamama or Hopper's (by others named Simpson) Island; Kuria or Woodle (by others marked Brend's) Island; Nanouki or Henderville (by others named Dundas) Island; Nanouti or Sydenham (by others named Yeast's) Island; and Taputeouea (or Bishop or Drummond) Island. Five more islands were reported to the Expedition as existing in this group, but were not searched for. They were named: Peru or Francela Island; Nukunan or Byron's Island; Arural or Hurd's Island; Tanana or Phoebe Island; and Onoutu or Rotcher's Island, which in all probability are those given opposite and collected from other sources. The multiplicity of names seems to have created much confusion with hydrographers, as these islands are shown on the various charts in different positions, and on some they are not all laid down. Even the islands whose positions were well established by the U. S. Exploring Expedition are not represented correctly on all charts. Byron Island is either improperly laid down on the principal charts, which place it in 177° 40' E., or the reports cited opposite are erroneous, which place it in 176° 58' 1" probably the fault is with the charts. There is also a report (communicated by Capt. Sprague, of the ship <i>Mercator</i>, to Captain Anlick, U. S. N.,) of the existence of a "Bishop Island," besides "Drummond Island," to which both names are generally given; but the reported position of Bishop Island would fall on a part of Drummond Island. The U. S. Exploring Expedition devoted much time to the examination of Drummond Island. The part of the Gilbert Archipelago which was not surveyed by Lieut. Wilkes requires examination.
777	Perroo or Francis or Sunday Island.	1 25 00 S. 1 23 00 S. 1 15 00 S.	176 15 00 E. 176 07 00 E. 176 06 00 E. 176 01 00 E.	1 21 00 S.	176 07 00 E.	{ Capt. Smith Capt. Sprague..... Capt. Handy Comd'r Sinclair, of the U. S. ship <i>Vandalia</i> .	
778	Aroras or Hope or Hurt's or Saltoi Island.	2 40 00 S. 2 40 00 S.	177 01 00 E. 177 00 00 E.	2 40 00 S.	177 00 00 E.	{ Dutailis..... Capt. Sprague, of ship <i>Mercator</i> ..	
779	Tamana or Rotcher or Chase Island.	2 35 00 S. 2 30 00 S.	176 15 00 E. 176 10 00 E. 176 01 00 E.	2 32 30 S.	176 13 00 E.	{ Capt. Smith Capt. Sprague..... Capt. Sinclair.....	
780	Onotui or Clerk Island.	1 50 00 S.	175 30 00 E. 175 46 00 E.	1 50 00 S.	175 38 00 E.	{ Capt. Smith Capt. Sinclair..... (Naut. Mag., 1862, p. 358; Wilkes' Narr., V, p. 80; Findlay, II, p. 1051 to 1062.)	

781	Shoal in Carimata Straits.	1 21 00 S.	109 02 00 E.	.....	Capt. Rodgers, of an English ship... (Merc. Mar. Mag., 1858, p. 183.)	The reporter discovered a shoal, with probably less than 4 fathoms water on it, the east point of Carimata Island bearing S. $\frac{1}{2}$ W., and the Lema Islands W. N. W. $\frac{1}{2}$ N. The British Admiralty chart of the Carimata Passage places it in the reported position; the Dutch government chart, by Lieut. Edeling, (Neth. Navy, 1862,) puts it in 1° 16' S., 108° 55' E. Both these authorities differ greatly in their positions in this vicinity. The Dutch longitude, in general, is from 6 to 7 miles to the westward of the English; and the Dutch place the Lema Islands 20 miles north of the north side of Carimata Island, whilst Horsburgh (II, p. 537) states the same distance to be only about 5 leagues.
782	Rock in Gardiner Bay, Gallopagos Island.	1 22 00 S.	89 44 00 W.	.....	French steam frigate Magicienne... (Ann. Hydr., XIV, p. 10.)	A rock was discovered in the centre of Gardiner Bay, of about 30 feet length northwest to southeast, and 10 feet broad, with 13½ feet water over it, and 7½ fathoms close to. From it the outer end of the island, lying in the east part of the bay, bears S. 70° E., two-thirds of a mile distant; a small island in the southwest part of the bay, S. 50° W., one-half a mile; the centre of Gardiner Is and N. 61° E., half a mile; and the extreme west end of the bay west, 1 mile distant. These bearings do not quite agree with the position given to the rock on the British Admiralty charts.
783	Shoal in Carimata Passage.	1 23 15 S.	108 52 30 E.	.....	Capt. S. T. Fitzmaurice, of the ship Jantsetgee. (China Mail.)	The Captain reports: "In fine, clear weather and smooth sea, with a moderate breeze, in 14 fathoms water, the ship struck on a coral shoal, there not being at the time the least indication of anything, although a lookout was aloft. While on the shoal the eastern Lema Island bore N. N. E., Pyramid Island S. 69° E., and the Outer Twin S. 40° W." British Admiralty charts give the position of this danger as reported; Dutch government charts (in accordance with the remarks to No. 781) in 1° 26' S., 108° 46' E.
784	Reef on the west coast of Sumatra.	1 27 22 S.	100 26 00 E.	.....	Capt. Sanvage, of the Neth. ship Van Spéijk. (Friend of China.)	The ship at anchor under the following bearings: Pulo Panjoe W. S. W.; Pulo Cariaba Bezar de Aijer S. $\frac{1}{2}$ E., Pulo Ower N. $\frac{1}{2}$ E., latitude by observation 1° 27' 22" S., discovered a reef, S. $\frac{1}{2}$ W. to S. S. E., 370 to 760 yards distant, of dry coral, with large stones in uneven depths from 7 to 1 fathom, extending northwest and southeast 400 to 500 yards, and southwest and northeast 130 yards. With the reported bearings, the position of the shoal would be, on the chart of the west coast of Sumatra, by Lieut. Edeling, (Neth. Navy,) in 1° 32' S.
785	Bank in the Molucca waters.	1 28 00 S.	129 52 00 E.	.....	Capt. Lawrence, of the bark Virgilia. (Ann. Hydr., VI, p. 13.)	The Virgilia struck and was lost on a bank between the islands of Popo and Mysore. The bank is placed on the chart of the Molucca waters, by Lieut. Gregory, (Neth. Navy, 1847,) in the reported position.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
786	Reef.....	0° 1' 30" S.	0° 1' 109 02 00 E.	0° 1' "	0° 1' "	Dutch report.....	Placed, with a query, on the chart of the west coast of Borneo, by Lieut. Edeling, (Neth. Navy, 1862.)
787	Reef.....	1° 30' 00" S.	106 59 00 E.	.....	.....	Dutch report.....	Shown as reported on the chart of the China Sea, (by the same, 1864,) and evidently not yet properly established.
788	Clarke's Reef.....	1° 30' 00" S.	160 00 00 W.	.....	.....	Wilkes' Narr., V, p. 4.....	The Peacock and Flying Fish, of the U. S. Exploring Expedition, were engaged for 15 days in searching for this and other dangers reported hereabouts without finding anything. This reef is placed on most of the charts.
789	Reef.....	1° 31' 00" S.	175 35 00 W.	.....	.....	Capt. Pritchard, U. S. Consul at Tahiti.	This reef is not laid down on the charts.
790	Shoal in the Carimata Pass.	1° 31' 00" S. 1° 29' 00" S.	109 15 00 E. 109 11 00 E.	.....	.....	Capt. Wise, of the ship Spirit of the North. (Naut. Mag., 1862, p. 107.)	Captain Wise reports that his ship grounded suddenly on a coral reef to the northwest of the Papan Islands, in broad daylight, although lookouts were stationed. When on the shoal, small round white patches were indistinctly seen under the bottom; the water was quite smooth, and not discolored. On backing off, before the ship had gone a quarter of her own length astern, the lead dropped at once from 17 feet into 9 fathoms; over the shoal there could not have been more than 12 feet water. Capt. Wise also complains of an incorrect representation of the Papan Islands on his chart, which gave only three, whilst there are four, the southernmost one of which bears nearly south from the one next to it; the remaining three are nearly in line N. E. by E. and S. W. by W. The British Admiralty chart shows only three islands; the Dutch government charts have four, but not quite in accordance with Capt. Wise's bearings. The shoal is indicated by the latter chart in the first position; by the former in the second position, with the remark "doubtful."
791	Shoal.....	1° 33' 00" S.	107 27 00 E.	.....	.....	San Francisco Herald..... (Horsburgh, II, p. 42.)	Is doubtless the Pratt Rock, (according to Horsburgh,) said to extend half a mile north and south, apparently level with the water, and having a rock or dead tree on its northern end, in 1° 32' S., 107° 26' E. English charts place it in this position; the Dutch chart of the China Sea (by Lieut. Edeling, 1864) in 1° 32' N., 107° 22' 30" E.

792	Rock.....	1 35 00 S.	129 38 00 E.	.....	.....	British ship Fitzmaurice..... (Ann. Hydr., XIII, p. 298.)	An isolated rock, with only 12 feet water on it. Is not laid down on charts. Pulo Popa is reported to bear from this rock N. to N. E., and Grand Canary, 12 miles distant, S. 3° E.
793	Rock.....	1 39 00 S.	129 46 00 E.	.....	.....	Dutch reports.....	Shown as a report on the chart of the Molucca Islands, by Lieut. Gregory, (Neth. Navy, 1847.) It may be identical with the preceding.
794	Actæon Rock.....	1 39 48 S.	106 37 58 E.	.....	.....	{ H. B. M. ship Actæon..... (Merc. Mar. Mag., 1857, p. 367.) (Horsburgh, II, p. 41.).....	{ The Actæon struck on a coral reef, 2 or 3 cables in extent, steep to, with patches of 7 feet on it, and 17 fathoms all around it. No land was observed from the mast-head. The Severn Shoal has been reported by Capt. Whetton, of the American ship Severn, as extending north-northeast and south-southwest 203 miles, with only 9 feet where the latter ship struck. When aground, the hills on the Banca were seen like islands, bearing from S.W. by S. $\frac{1}{2}$ S. to S. W. by W. There is a possibility that these two shoals may be identical. English and Dutch charts exhibit both, the Dutch two miles to the westward of the English, with a query placed at the Severn Bank.
795	Severn Bank.....	1 40 00 S.	106 30 00 E.	.....	.....		
796	Reef in the Moluccas.	1 40 00 S.	120 46 00 E.	.....	.....	War steamer Medusa..... (Ann. Hydr., XXVII, p. 238.)	A reef with two fathoms water over it. It is a late discovery.
797	Reef.....	1 40 00 S.	174 50 00 W.	.....	.....	Capt. Winslow, of ship Phoenix... (Nantucket Inquirer, 1851.)	Said to extend northwest and southeast 1 mile, and to be three-quarters of a mile broad, with two pointed rocks nearly awash. Soundings were obtained from a boat. Blunt's chart of the South Pacific has a "Windsor Reef" in 2° 00' S., 175° 40' W., probably intended for this.
798	Shoal in the Molucca waters.	1 40 00 S.	127 36 30 E.	.....	.....	Neth. sloop of war Haai..... (Ann. Hydr., VIII, p. 16.)	Soundings of 26 feet, with the north point of Gomona bearing E. S. E. $\frac{1}{2}$ E., and the southwest point of Great Oby N. W. $\frac{1}{2}$ W., 6 miles distant, indicated on the chart of the Moluccas, by Lieut. Gregory, (Neth. Navy, 1847.)
799	Reef.....	1 40 00 S.	179 16 00 W.	.....	.....	Capt. Pritchard, U. S. consul at Tahiti.	Does not appear to be laid down on the charts.
800	Island.....	1 41 00 S.	149 52 00 E.	.....	.....	{ San Francisco Herald..... { Findlay's South Pacific Directory, p. 636.	{ Shown on Blunt's chart of the South Pacific Ocean, and in Raper's tables, in 1° 40' S., 149° 54' E., in addition to Matthias Island. It is doubtless identical with the Squally Island of Tasman, and the Kerue Island of Bougainville, placed by Findlay in 1° 41' S., 150° 06' E.
801	Rock, east coast of Banca.	1 48 40 S.	106 08 00 E.	.....	.....	Neth. war steamer Bronbeck..... (Ann. Hydr., XXVII, p. 239.)	A rock was lately discovered in Songy Leat Bay, of only 2 fathoms extent, with but 2 feet water over it—Mount Maras bearing W. by S., the mouth of the Songy Leat W. 7° N., the islet near Cape Lajang W. 78° N., and Mount Reboe W. 56° S. The chart of Banca Straits, by Lieut. Dyserinck, (Neth. Navy, 1862.) shows it; but Horsburgh, in his description of the bay, (vol. I, p. 44.) does not mention it.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
802	Lanrick Rock.....	0 1 "	0 1 "	0 1 "	0 1 "	(Capt. White, of the ship Lanrick. Capt. Newland, of the ship Asia.. Horsburgh, II, p. 41..... Capt. Cazales, of ship L'Orient... Raper's Tables, (the discoverer's position.) (Naut. Mag., 1853, p. 695; 1854, pp. 336 and 448; Ann. Hydr., II, p. 11.)	The Magdalen Shoal is an early discovery (1801) by Capt. Cowman, of the American ship Magdalen, and is described by Capt. Ross, (the pioneer surveyor in Indian waters,) who places it in 1° 59' S., 25 miles N. $\frac{3}{4}$ W. from Gaspar Island, as of very small extent, with only 11 feet water on it. There is scarcely any doubt that the Lanrick and the Newland Shoals, which, by their reporters, were thought to be new, are identical with the Magdalen Reef. The descriptions are similar; the longitudes would agree nearly, and the latitude of Capt. Ross may have been from dead reckoning. The Lanrick (when the rock was under her bilge) had 5 fathoms in the chains, and 15 fathoms at the bow and stern. Next morning, when at anchor, not more than 1$\frac{1}{4}$ mile off, her boats could not find the rock, after a two-hour search; neither did they get less water than 17 fathoms. The observations by Capt. White and by Capt. Newland appear to have been very satisfactory, and were immediately corrected by Gaspar Peak, which was assumed to be in 107° 06'. Lieut. Rodgers, of the U. S. North Pacific Surveying Expedition, found Gaspar Peak (by a repeated direct chronometrical measurement of its distance to Batavia) to be 107° 05' 15" E. Taking the latter determination as the true, the mean of the determinations of Captains White and Newland, corrected by it, would be the probable position of this danger. Charts generally show both the Magdalen and the Lanrick Reefs in the reported positions.
803	Newland Shoal.....	1 52 30 S.	107 02 00 E.				
804	Magdalen Shoal.....	1 52 00 S.	107 01 45 E.				
	Magdalen Shoal.....	1 59 00 S.	106 59 00 E.				
	Magdalen Shoal.....	1 54 00 S.	.....				
	Magdalen Shoal.....	1 56 00 S.	106 59 00 E.				
805	Reef.....	1 53 00 S.	124 36 00 E.			Ship Sea Bird..... (Newspaper scrap.)	The ship ran over a coral reef in 3 to 5 fathoms water, about one mile in extent, with Hammond Island bearing W. $\frac{1}{2}$ N. and Haycock Island S. E. $\frac{1}{4}$ E. This rock is indicated on the chart of Celebes, by Lieuts. Smits and Carnbee, (1855,) in 1° 50' S., 124° 18' E.; but the surveys in this vicinity are doubtless incomplete, as the islands differ much from the positions assigned to them by Raper's tables.
806	Palmer Bank.....	1 55 00 S.	106 25 00 E.			Capt. Palmer, of the ship Boddam. (Horsburgh, II, p. 43.)	The Dutch chart of the China Sea, by Lieut. Edeling, (Neth. Navy, 1864,) shows this bank, with a query. The Boddam

is said to have struck, although the lead, hove 5 minutes before and immediately afterwards, indicated not less than 10 fathoms. When at anchor, distant $2\frac{1}{2}$ miles S. S. W. from the shoal, Tanjong Ryah bore W. N. W., and the southernmost low islands of Pulo Panjang S. S. W. $\frac{3}{4}$ W.

No island is laid down there on charts. The reported one is doubtless Christmas Island, in $1^{\circ}51'$ northern latitude, and $157^{\circ}20'$ west longitude.

This island is not found on any chart.

This rock, on which H. B. M. ship Transit was wrecked, lies at the extremity of the rocky, uneven ground, which extends $2\frac{1}{2}$ miles off shore, between Cape Oelar and Bersiap Point, and W. $\frac{1}{4}$ N., 8 cables distant from a reef, which generally shows, (except at high tide,) with 6 to 10 fathoms water between the latter and the rock. The least water at low spring tides on the rock is 12 feet. From this spot Cape Oelar bears N. E. by E., the highest point of the Monopin range E. S. E. $\frac{1}{4}$ E., and Cape Kalian $1\frac{1}{2}^{\circ}$, open to Bersiap Point, S. S. E., southerly; it is distant from the latter point 2 4-5th miles. There are 20 fathoms water at a cable's length to the westward of the 12 feet—the depth around varying from 14 to 12, 7, and 5 fathoms, over very uneven bottom. A rock, awash at low water spring tides, lies E. $\frac{1}{2}$ N., 2 cables' length from the Transit Rock, and there are $4\frac{1}{2}$ fathoms, (perhaps less,) rocky bottom, at half a mile northward of the Transit Rock, with 20 fathoms close to, indicated by strong ripples. The British Admiralty's chart of Banca Straits places the Transit Rock in $105^{\circ}07'$ E.; the Dutch chart, by Lieut. Dyserink, (Neth. Navy, 1862,) puts it still more to the westward.

This shoal, with only 3 feet water on it, and 13 and 14 fathoms close to, is said to lie about $3\frac{1}{2}$ leagues to the northeast of Pulo Panjang, where it is indicated on the chart of the China Sea, by Lieut. Edeling, (Neth. Navy, 1864.)

With 10 feet over it, Badioer Island bearing S. 61° W., the west coast of Bocar Island S. 17° W., and Cape Riah W. 17° N. It is shown on Lieut. Edeling's chart of the China Sea.

About $4\frac{1}{2}$ miles to the westward of Diedriska Shoal (No. 810) another uncertain shoal is reported, and marked on Lieut. Dyserink's chart of Banca Straits, with 12 feet of water near 10 fathoms, between which and Pulo Panjang, and from thence to the coast, numerous rocky shoals are said to exist, with from 7 to 5 fathoms water between them.

807	Christmas Island.....	1 55 00 S.	156 40 00 W.	.....	Capt. Pritchard, U. S. Consul at Tahiti.
808	Island.....	1 57 00 S.	174 30 00 E.	.....	China Mail.....
809	Oelar Reef.....	1 59 40 S.	105 08 40 E.	.....	Merc. Mar. Mag., 1857, p. 367.....
810	Diedriska Shoal.....	2 00 00 S.	106 25 00 E.	.....	Horsburgh, II, p. 43.....
811	Shoal.....	2 00 00 S.	106 32 45 E.	.....	Neth. ship Tollens..... (Ann. Hydr., XXVII, p. 239.)
812	Robert Shoal.....	2 00 00 S.	106 20 30 E.	.....	Horsburgh, II, p. 43.....

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
813	Bank in Carimata Passage.	0° 00' S.	108° 00' 00" E.	0° 1' "	108° 01' "	Ann. Hydr., 1864, III, p. 199.	The ship Florence Adelaide was lost on a bank in the reported position. No details are given.
814	Line of Reefs from... to	2° 00' 00" S. 2° 07' 00" S.	121° 56' 00" E. 121° 52' 00" E.	.....	.....	Dutch reports.	Indicated by the chart of the east coast of Celebes, etc., by Lieuts. Smits and Carnbee, (Neth. Navy,) but evidently not well established.
815	Line of Reefs from... to	2° 00' 00" S. 2° 05' 00" S.	123° 06' 00" E. 123° 11' 00" E.	.....	.....	Dutch reports.	Indicated by the chart of the east coast of Celebes, etc., by Lieuts. Smits and Carnbee, (Neth. Navy,) but evidently not well established.
816	Coral Rocks.....	2° 01' 00" S.	108° 35' 00" E.	.....	.....	Capt. McKenzie (Naut. Mag., 1847, p. 171; Horsburgh, II, p. 537.)	The schooner Jupiter (Capt. Peterson) is said to have passed over a shoal of coral rocks 3 miles west of the well-known Ontario Reef. British Admiralty and Dutch government charts mark this shoal as questionable—the former in the reported position, the latter in 108° 30' E.
817	Bank	2° 01' 45" S.	106° 21' 45" E.	.....	.....	Ship Robin Hood (Ann. Hydr., XXVII, p. 239.)	3 fathoms least water, Cape Riah bearing N. 50° W., and Badjoer S. 28° W. Laid down on late Dutch charts.
818	Shoal north of Gaspar Straits.	2° 02' 00" S.	106° 36' 00" E.	.....	.....	Dutch reports.	A shoal of 4 fathoms reported, and indicated on Dutch charts.
819	Bank	2° 03' 30" S.	106° 19' 30" E.	.....	.....	Ann. Hydr., XXVII, p. 239.	Probably dry at low water, the northwest Lapa Peak bearing S. 62° W., and the Cape Riah Peak N. 40° W. Laid down on late Dutch charts.
820	Reef	2° 04' 00" S.	106° 32' 00" E.	.....	.....	Bark Sultan Iskander (Ann. Hydr., XXVII, p. 239.)	One fathom over it—Cape Riah bearing N. 64° W., Boear Island S. 20° W., Tatawi Island S. 48° W., and Cape Berikat S. 25° E. It is laid down on late Dutch charts.
821	Anina Reef, (Macassar Straits.)	2° 04' 00" S.	117° 02' 00" E.	.....	.....	Merc. Mar. Mag., 1860, p. 158.	The brig Emily Anina is said to have struck in the reported position. The British Admiralty chart of the Macassar Straits shows the reef as a reported danger. On the Dutch chart of the same straits it appears to be placed 4 miles further westward.

822	Shoal in Banca Straits, or	2 05 00 S.	105 08 00 E. 105 06 30 E.	.....	Singapore Free Press..... (Naut. Mag., 1853, p. 388.)	The following are bearings of a shoal situated in the inner passage: to Minto, between Karang Hodje and the shore, Tanjong Kalean bearing S. E., Tanjong Bersiok N. $\frac{1}{2}$ W., and the Monopin Hill N. E. $\frac{1}{2}$ E. At low water there are 6 to 9 feet water on the reef, and not 3 to 9 fathoms, as shown on Dutch charts. The latest Dutch chart, by Lieut. Dyerink, (1862,) still shows 2 $\frac{1}{2}$ fathoms; the British Admiralty chart of Banca Straits shows 2 fathoms. The first position is given as reported on the English, the second on the Dutch charts, in accordance with a general difference of longitudes in these waters.
823	Rock on the east coast of Banca.	2 06 00 S.	106 22 00 E.	.....	Merc. Mar. Mag., 1860, p. 157.....	Said to lie N. by E., 2 miles from Pulo Bojur. Charts indicate foul ground all around this locality.
824	Shoal in Gaspar Straits, or	2 13 00 S. 2 14 00 S.	107 36 00 E. 107 29 00 E.	.....	Capt. Sowerby, of the ship Montmorency. (Merc. Mar. Mag., 1862, p. 29.)	Shoal, with apparently not more than 2 fathoms water upon it, with the middle peak of Mount Tebalo (north end of Billiton) bearing S. 32° E., and Gaspar Island Peak S. 66° W. It extends northwest and southeast about 3 miles, and is a third of a mile broad. No breakers were seen. The first position is from observations; the second by the bearings on the Gaspar Straits chart of Lieut. Rodgers. This part of the straits was not examined by the expedition under his command.
825	Shoal in Banca Straits.	2 17 30 S.	105 11 00 E.	.....	H. B. M. ship Assistance..... (Merc. Mar. Mag., 1858, p. 17.)	The Assistance grounded on the steep edge of the flat which extends from the shore to the westward of Fourth Point, in Banca Straits, that point bearing S. 54° E., distant 4 $\frac{1}{2}$ to 5 miles; it is off shore 3 $\frac{1}{2}$ or 4 miles. Shortly before the vessel struck 13 fathoms were obtained, and when aground there were only 3 feet water about a cable's length ahead or to the west-southwest, 4 fathoms at 40 yards on the starboard beam, 2 fathoms on the port side, and 3 fathoms astern—the water deepening rapidly in that direction. The charts of Banca Straits (English and Dutch) do not show a shoal so far out. The flat seems to extend further north than indicated.
826	Columbian Rock, in Gaspar Straits.	2 20 30 S.	106 48 00 E.	.....	Capt. Wakem, of the ship Columbia. (Naut. Mag., 1846, p. 148.)	The ship is reported to have been lost on a rock with only 10 feet on it, close to 17 fathoms, with Gaspar Island bearing E. by S., and Tree Island S. E. by E. $\frac{1}{2}$ E. The opposite position is from the bearings on the chart of Gaspar Straits, by the North Pacific Surveying Expedition. The site has not been examined.
827	Chrysolithe Rock, in Gaspar Straits.	2 23 00 S.	106 58 00 E.	.....	Dutch reports, 1851.....	This rock, said to lie E. by N., 1 $\frac{1}{4}$ miles from the south part of the Warren Hastings Reef, appears never to have been searched for.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
828	Shoal in the Carimata Passage. or	0 1 " 2 26 00 S.	0 1 " 108 31 00 E. 108 27 00 E.	0 1 "	0 1 "	Capt. McKenzie..... (Naut. Mag., 1847, p. 171.)	Captain McKenzie has often passed near the site of a shoal reported to exist N. W. by N. from Montaran Island without seeing any indication of it. It is marked on charts as questionable; in the first position by the British Admiralty, in the second by Dutch government charts.
829	Chase Island	2 26 00 S.	176 00 00 E.	.....	.....	China Mail.....	Is doubtless Tamana or Rotcher Island, No. 779.
830	Rock in Gaspar Straits. By bearings	2 27 30 S. 2 30 45 S.	107 42 00 E. 107 37 30 E.	.....	.....	Capt. Breitay, of the ship Alwina. (Naut. Mag., 1858, p. 347.)	The Alwina passed close to a rock 1½ miles N. N. W. from the northwesternmost of the Eleven Islands off the northwest hook of Billiton; it appeared to be a detached danger, 6 to 9 feet under the surface, and deep water close to, all around. The first position is the reported one, the other that in which bearings and distance would place it on the chart of Gaspar Straits, by the North Pacific Surveying Expedition.
831	Shoal in Banca Straits.	2 34 00 S.	105 48 00 E.	.....	.....	Neth. Commission for the correction of sea charts. (Ann. Hydr., XIII, p. 295.)	Mud-bank, with 4 fathoms water on it, Nangka Island bearing north, and the middle of Mount Parmasang east. This bank does not appear to be laid down on any charts. Dutch charts show 14 fathoms under these bearings.
832	Sand-bank in the Carimata Passage.	2 35 00 S.	108 19 00 E.	.....	.....	Capt. Gilkison, of the bark Bellhaven. (Naut. Mag., 1846, p. 161.)	Low sand-bank, extending about a cable's length north and south, probably covered at high water; marked on charts as questionable.
833	Shoal in the Carimata Passage.	2 37 00 S.	108 25 00 E.	.....	.....	Naut. Mag., 1860, p. 559.....	The ship Josna Waddington was probably wrecked on a rock marked "position doubtful," about 8 miles to the northward of Pigeon Island, near the northeast point of Billiton.
834	Akbar Shoal, in Gaspar Straits.	2 39 00 S.	107 13 30 E.	.....	.....	Capt. Dumaresq, of the ship Akbar.	The ship was lost upon this rock, for which the following approximate bearings are given: Gaspar Island N. W. by N. ¼ N., and Pulo Leat S. W. ¼ S. The rock was thought to be of small dimensions, and as no breakers were visible, probably 11 feet under water. The rock has never been found by surveying vessels. It is laid down on charts as reported.
835	Breakers	2 39 00 S.	116 56 00 E.	.....	.....	Dutch reports..... (Horsburgh, II, p. 554.)	Seen by a passing ship, extending north and south 5 miles. It is noted on charts as reported.

836	Swallow Island.....	2 41 00 S.	171 40 00 W.			Capt. Greene, of the brig Agate... (Naut. Mag., 1860, p. 504; Findlay's South Pacific Directory, p. 596.)	Long low island, with a spacious lagoon inside, and some traces of former inhabitation. On the east side of the entrance to the lagoon a large pyramid, built of stone, was found, and also a large square enclosure of stone on the west side. Capt. Greene took possession of it for the Phoenix Guano Company. The description does not answer to any of the islands in the Phoenix group visited by the U. S. Exploring Expedition. The island is not laid down on charts. It may be identical with Mary Island, another doubtful danger placed in 2° 51' S., 170° 55' E., or with Canton Island, shown by Blunt's general chart of the South Pacific.
837	Rock in Gaspar Straits.	2 42 00 S.	107 05 00 E.			Capt. Lied, of the bark Runeberg. (Naut. Mag., 1857, p. 163.)	Coral bank, of 80 fathoms in circumference, with water varying from 4 to 24 feet, and 19 fathoms close to. No bearings are given. It would therefore be difficult to place the shoal, which is not shown on any chart in the reported position.
838	Shoal in Banca Straits.	2 44 00 S.	105 54 00 E.			Capt. Van Wedden, of the Neth. ship Niobe. (Ann. Hydr., XI, p. 362.)	Shoal, 2 or 3 miles south of Karang Tambaya, with 16 feet water over it, on the following bearings: Lalang or Pongjong point S. 35° E., southernmost point of Parmassang N. 2° 40' E., highest peak of Parmassang N. 24° E., second point of Sumatra N. 72° E., Karang Timbaya N. 11° 30' W. Shown on the British Admiralty charts.
839	Cornelius Haga Rock.	2 44 45 S.	107 01 00 E.			Capt. Bell, of the ship Cornelius Haga. (Naut. Mag., 1851, p. 278.)	(Capt. Bell claims to have lost his ship on an unknown hidden rock, with Gaspar Island bearing N. by E. $\frac{1}{2}$ E., and the north corner of Leat Island S. E. $\frac{1}{2}$ S. The Memnon was said to have been lost on a similar danger, bearing from the island near the west point of Pulo Leat north, and from the extreme north point of Pulo Leat W. N. W. The establishment of these two dangers in one of the most frequented eastern channels was one of the objects of the examination of Gaspar Straits by the North Pacific Surveying Expedition. All this part of the Macclesfield Channel therefore was thoroughly searched; parallel lines were run at short distances north and south, and these again crossed by lines east and west, but no indication could be found of any unknown danger. Finally natives were met, some of whom had been present when the wrecks occurred, and they pointed out the remains of both ships, plainly visible in a couple of fathoms water, well inside of the Alceste Reef, which is and was long previously correctly laid down on all charts. An anchor marked Haga was recovered. Both ships therefore were lost on the Alceste Reef, on which probably also the Runeberg (1837) struck. The Haga Rock is still shown by Dutch charts in its reported position. The British Admiralty chart of Gaspar Straits, a reissue of the North Pacific Surveying Expedition's, omits it.
840	Memnon Rock (Both in Gaspar Straits.)	2 48 30 S.	107 01 30 E.			Capt. Gordon, of the ship Memnon. (Ann. Hydr., VII, p. 10; Horsburgh, II, p. 36.)	

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
841	Canton Island.....	0° 1' " S.	173 28 00 W.	0° 1' " S.	0° 1' " W.	Capt. Wing, of the American ship Canton. (Honolulu Friend, March, 1855.)	The whaleship Canton was lost on a bank in the reported position, from which no land was visible. Blunt's general chart of the Pacific Ocean shows in that position Canton Island, which should be Canton Bank. The British Admiralty chart has no danger placed there at all.
842	Island.....	2 44 00 S.	171 15 00 W.	3 08 00 S.	171 08 30 W.	(San Francisco Herald.....	All of these positions, it is believed, refer to one and the same island—the Enderbury of the U. S. Exploring Expedition; the determination of which by the latter is generally accepted as the correct one, although some charts show, in addition, Mary Island in 2° 53' S., 172° 00' W. as doubtful. Inray's position was searched by Captain Fox, of the ship Mary Catharine, and the site of Boulcott's Island by Lieut. Wilkes, but nothing was found there. Enderbury, as described by Lieut. Wilkes, is a coral island, 3 miles long by 2½ broad, surrounded by the usual reef, 30 to 150 feet wide, and extends a short distance from its points; the lagoon inside is dry; the highest elevation is 18 feet; the southern end is the widest, and has on it two clumps of stunted shrubs; the northern end is bare of vegetation.
843	Boulcott's Island.....	2 47 00 S.	171 46 00 W.			China Mail.....	
844	Mary's Island.....	2 50 00 S.	171 56 00 W.			Inray's Chart.....	
845	Do.....	2 53 00 S.	172 00 00 W.			New York Tribune, 1858.....	
846	Farmer Island.....	3 00 00 S.	170 50 00 W.			Do.....	
847	Bernies Island.....	3 09 00 S.	171 18 00 W.			China Mail.....	
	Enderbury Island.....	3 08 00 S.	171 08 30 W.			U. S. Exploring Expedition.....	
						(Naut. Mag., 1859, p. 500; 1856, p. 260; Findlay, II, p. 996; Wilkes' Narr., III, p. 370, and V, p. 4.)	
848	Island.....	2 47 00 S.	144 02 00 E.			San Francisco Herald.....	Not shown by charts; the nearest danger shown is Boissy Island, 23 miles to the southward.
849	Shoalin Banca Straits	2 48 00 S.	105 55 30 E.			Neth. war steamer Königin der Niederlande. (Merc. Mar. Mag., 1858, p. 183.)	Eight or nine feet water, over soft mud, Lalarie Point bearing S. E. by E., distant two miles. Shown on the Dutch chart of Banca Straits, by Lieut. Dyerinky, but is not on the British Admiralty charts.
850	Favorite Island.....	2 50 00 S.	176 40 00 W.			New York Tribune, 1858.....	Is not laid down on charts, and its existence is improbable. The Phoenix Group, however, into which the reported position would place it, is not well known.
851	Lammermuir Rock, in Gaspar Straits.	2 52 30 S.	170 00 00 E.			Ship Lammermuir.....	The ship in the Macclesfield channel struck on a sharp-pointed rock, with deep water close to—Entrance Point bearing S. 28° W., and the southwest point of Pulo Leat S. 67½° E. These bearings place the rock on the chart of Gaspar Straits, by the U. S. North Pacific Surveying Expedition, 1 mile to the west of the reef making out

from Pulo Jelaka. Either the reef makes out so far, or the ship struck on the edge of the reef as laid down. The latter is probably the case, as the survey there was very carefully made.

The Trinder Shoal was seen in the brig Amboina, and is described as extensive, all submerged, but showing small breakers in various parts; the centre in 2° 59' S., Cape Mandhar bearing from it S. E. by S., distant 42 miles. Capt. Wills and the captain of the Sullimany report to have seen it also, trending from 2° 55' to 3° 01' S., in a northwest and southeast direction, distant from the Celebes shore 20 to 25 miles. Capt. Magruder, of the U. S. ship St. Mary's, passing there in 1855, did not see it. Most probably it is the shoal seen by the Neth. war steamer Padang in 2° 48' S., 118° 21' E., (see No. 747,) and there the British Admiralty chart of the Macassar Straits places it. The Dutch chart by Lieut. Edeling (1860) has it in 118° 19' E.

The bark Victor touched a rock with 8 feet water on it, Pulo Retong bearing S. 21° 30' E., the small island between Pulo Mendanao and Pulo Gala N. 46° E., and Table Island W. 4° S. These bearings place the rock, on the chart of Gaspar Straits by the U. S. North Pacific Surveying Expedition, only half a mile from the reef making out from Billiton.

The Falcon ran aground on a small sand patch, with 12 feet water over it, Round Island bearing N. $\frac{1}{2}$ W., about 3 miles distant. On this spot 16½ fathoms are shown on the chart just cited, but a shoal is shown only three-quarters of a mile distant, with 3½ fathoms.

Under date of March 5, 1858, an article was published by the New York Tribune enumerating guano islands in the Pacific, a number of which had never been shown by any chart. It is not known on what authority the list is based, but evidently it contains many mistakes. It appears that the majority of those islands, not heretofore known, has been adopted by some authorities, and placed at least as questionable islands on some charts, that of the British Admiralty among them. Enderbury, as reported opposite, is one of these islands; it is probably intended for McKean's Island, of the U. S. Exploring Expedition, in 3° 35' S., 174° 17' 30" W.

Captain Rocher saw a bank with rocks in the reported position, and a larger one to the southwest of the first, 1½ miles distant from it. No charts show these dangers.

852	Trinder Bank.....to	2 55 00 S. 3 01 00 S.	118 21 00 E.	Capt. Wills, of the ship Charles Forbes. (Naut. Mag., 1847, p. 319; Horsburgh, II, p. 551.)
853	Victor Shoal, in Gaspar Straits.	2 59 45 S.	107 23 30 E.	Ann. Hydr., XIII, p. 296.....
854	Shoal in Gaspar Straits.	3 06 00 S.	106 52 15 E.	Capt. Keay, of the ship Falcon.... (Merc. Mar. Mag., 1862, p. 285.)
855	Enderbury Island....	3 08 00 S.	174 14 00 E.	New York Tribune, 1858.....
856	Shoals in Gaspar Straits.	3 14 12 S.	107 02 00 E.	Capt. Rocher, of the ship Marie Eliza. (Ann. Hydr., 1861, III, p. 188.)

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
857	Small Island.....	3 15 00 S. 0 ' "	154 41 00 E. 0 ' "	0 ' "	0 ' "	China Mail	Is probably the westernmost of the Abgaris Islands, 3° 15' S., 154° 35' E.
858	Reef on the west coast of Borneo.	3 15 25 S.	110 15 20 E.	.....	.....	Neth. war steamer Linga..... (Ann. Hydr., XXVII, p. 239.)	With one fathom over it. It is a late discovery.
859	Blas Matthien, (rock in Gaspar Straits.)	3 20 00 S.	106 57 30 E.	.....	.....	Horsburgh, II, p. 34.....	This rock, said to have been seen in 1839, with 9 feet water on it, could not be found by the U. S. North Pacific Surveying Expedition, and is therefore omitted from its charts. The Dutch charts retain it.
860	Shoal in Macassar Straits.	3 21 00 S.	117 29 21 E.	.....	.....	Ann. Hydr., XIII.....	The Neth. war steamer Padang discovered a sand-bank a little above water, one-quarter of a mile long east-south-east and west-northwest. It is laid down on Dutch and English charts.
861	Trinder Shoal, in Macassar Straits.	3 21 00 S.	118 46 00 E.	.....	.....	Capt. Were, of the ship Premiere. (Naut. Mag., 1839, p. 790.)	Another position of Trinder Shoal; examined by Capt. Were in a boat, but could not find bottom.
862	Reef in Gaspar Str'ts.	3 21 30 S.	106 41 00 E.	.....	.....	Merc. Mar. Mag., 1858, p. 183.....	A coral reef, 3 miles in circumference, with probably about 6 feet water on it, St. Paul's Mount bearing from it N. N. W.; is reported to have been seen by the bark Banca in 1857. The examinations of the U. S. North Pacific Surveying Expedition did not extend so far. The shoal is shown, with a (?), on the latest Dutch and English charts. Commander Stanton, H. B. M. Navy, could not find it.
863	Reef in Gaspar Str'ts.	3 24 00 S.	106 40 20 E.	.....	.....	Capt. Thos. Mitchell, of the ship Queen of Nations. (Merc. Mar. Mag., 1863, p. 148.)	A reef, with apparently little water near the centre, extending northeast and southwest about 2 cables, with 9 fathoms water, sand and coral bottom, about 500 yards to the southwest of it; may be identical with the preceding, notwithstanding the difference as to the reported extent. It is not laid down on charts.
864	Clayton's Shoal.....	3 26 00 S.	107 36 00 E.	3 24 30 S.	107 38 15 E.	Capt. Clayton, of the ship Camden. (Salem Gazette, and Ann. Hydr., VIII, p. 136; Horsburgh, II, p. 36.)	A shoal, having several black rocks in its centre, in extent about one-third of a mile; is doubtless the Karang Nada of the Dutch, established by the U. S. North Pacific Surveying Expedition, under the name of Aunvang Bank, in 3° 24' 30" S., 107° 38' 15" E. The Aunvang Bank of the Dutch is the Cooper Shoal of the expedition, N. N. W. of the Karang Nada.

865	Shoal in Gaspar Str'ts.	3 28 00 S.	106 05 00 E.	.....	.....	Capt. Reid, of the brig Squaw.... (Merc. Mar. Mag., 1860, p. 19.)	Captain Reid saw in Gaspar Straits a sunken ship in the reported position, within 100 yards of which he carried 8 fathoms water. This would be close to the coast of Sumatra, where 5 fathoms are given, and to which Gaspar Straits do not extend. Probably an error has crept into the reported longitude, and it was intended to give 106°55', where at least the 8 fathoms would have been found. No shoal is marked there on charts, however.
866	Bank in Macassar Straits.	3 30 00 S.	117 41 00 E.	.....	.....	Ann. Hydr., 1864, IV, p. 456; Horskburgh, II, p. 549.	A sandy island was seen in the reported position, with three remarkable points. The British Admiralty chart shows thereabout 3 banks, (evidently placed only by report,) in 3° 30' S., 117° 30' E., (seen by the ships Wm. Money and Ogleshorpe,) in 3° 34' S., 117° 39' E., and 3° 39' S., 117° 37' E. The Dutch chart, by Lieut. Edeling, shows a bank or an island in 3° 33' S., 117° 30' E., and a mark for a rock in 3° 38' S., 117° 27' E. This region appears to be foul and unexplored.
867	Ploughboy Island....	3 30 00 S.	176 02 00 E.	.....	.....	China Mail	This island, said to be surrounded by a reef, and to lie 8 or 9 miles off shore, is not shown on any chart. It is most probably identical with Tamana or Chase Island, the southernmost of the Gilbert Archipelago. (See 779.)
868	Wilkes' Island.....	3 31 00 S.	174 14 00 W.	.....	.....	Capt. Pritchard, U. S. Consul at Tahiti.	Is doubtless the McKean Island, established by Lieut. Wilkes to be in 3° 35' S., 174° 17' 30" W.
869	Shoals in Gaspar St's. to	3 31 00 S. 3 32 00 S.	107 11 30 E. 107 10 30 E.	3 33 00 S. 3 34 15 S.	107 08 00 E. 107 06 00 E.	Capt. Potter, of ship Hotspur.... (Merc. Mar. Mag., 1860, p. 65.)	Captain Potter reports to have discovered two shoals, the one on which his boat found 14 feet water over rotten coral bearing from Shoal Water Island S. S. W., distant 12 or 13 miles; the other bearing from the first shoal N. E. by E., about 1 mile distant. He also saw some other shoal patches, which induced him to abandon his attempt to pass between Shoalwater Island and the Fairlie Rock. The given bearings make it certain that these two shoals are the Hancock (with 6 feet water) and the Turtle Shoal (with 3 feet,) two miles distant from each other, discovered and established by the U. S. North Pacific Surveying Expedition in the positions given opposite as probable. The other foul places which he saw are the Larabie Shoal, Sand Island, and the reefs to the north of it. This region was thoroughly examined by the Expedition.
870	Shoal in Gaspar Str'ts.	3 32 00 S.	107 05 00 E.	3 34 30 S.	107 06 00 E.	Capt. Abdallah, of the Dutch bark Balguair. (Ann. Hydr., XIII, p. 296.)	Breakers seen from the ship bearing S. E. 8° S., distant three-quarters of one mile, when Shoalwater bore N. E. $\frac{1}{2}$ N., and Sand Island E. N. E. $\frac{1}{4}$ E., are surely the Hancock Shoal, which would have been distant from the ship 4 miles at those exact bearings.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
871 872	Shoal in Gaspar Str'ts. Hippogryph Shoal....	0 1 "	0 1 "	0 1 "	0 1 "	{ Capt. Bell, of Land of Cakes..... { American ship Hippogryph..... (Merc. Mar. Mag., 1859, p. 122, and 1860, p. 66; Ann. Hydr., 1861, III, p. 187.)	{ Captain Bell saw a wreck, when Fairley Rock bore N. E., about 6 miles distant; the Hippogryph discovered a shoal near the same locality. From the Dutch chart of Gaspar Straits, by Lieut. Zuidewijn, (Neth. Navy, 1863,) it ap- pears that this shoal, on which 9 feet water is shown, has been well established. The examinations of the North Pacific Surveying Expedition did not extend there. The reef should be added to its chart. A wreck is marked on Lieut. Zuidewijn's chart, 3½ miles E. S. E. of the shoal, said to have been seen there by Capt. Blake, of the British bark Maida.
873	Arthur Island.....	3 32 00 S.	176 05 00 W.	.....	.....	New York Tribune, 1858.....	Arthur Island is placed there by Arrowsmith; but, according to Lieut. Wilkes, its existence is improbable. Perhaps in the report western longitude was given for eastern, in which case it would fall together with Ploughboy Island. (See No. 867.)
874	Bank in Macassar Straits.	3 34 00 S.	117 39 00 E.	.....	.....	Capt. Martindale, of the ship Fort William. (Horsburgh, II, p. 549.)	This bank was first seen by Capt. Hunter, and described as very small, and probably covered at high water. Capt. Martindale confirms its existence. On Dutch charts it is not laid down. It is probably identical with No. 866.
875 876	Reefs in Macassar and Straits.	3 34 30 S. 3 38 00 S.	119 24 00 E. 119 24 30 E.	}	}	Neth. war steamer Phoenix..... (Ann. Hydr., 1861, III, p. 188.)	{ Two reefs, with 21 feet water over them, without discolor- ation, the first of 1 cable extent north by west and south by east, with the following bearings: The highland visible to the north of Mandhar West, the extreme west inside of the west part of Binoeang Island W. N. W., the southern- most land in sight S. 15° E., and Kampoeng Brinoeang Kraing N. 45° E. The other reef bears S. 15° E. from the first, distant 4 miles. Both are indicated on the chart of Macassar Straits by Lieut. Edeling, Neth. Navy, 1862.
877 878	Phoenix Island..... Phoenix Island.....	3 35 00 S. 3 40 00 S.	171 39 00 W. 170 52 00 W.	} 3 34 15 S. }	171 33 00 W.	{ China Mail, { New York Tribune, 1858..... (Wilkes' Nar., III, p. 370, and V, p. 4.)	{ Are probably identical with Birnie Island, established by Lieut. Wilkes in 3° 34' 15" S., 171° 33' W. The British Admiralty and Blunt's charts show Phoenix Island sepa- rately—the former in 3° 25' S., 171° W. Natives deny its existence.

879	Reef in Gaspar Straits.	3 35 00 S.	107 02 00 E.	.....	Dutch reports.....	The chart of Gaspar Straits, by Lieut. Zuidewijn, (Neth. Navy, 1863,) shows there a danger, with a (?). The examinations of the North Pacific Surveying Expedition did not extend so far south.
880	Sharpshooter Reef...	3 35 30 S.	106 54 00 E.	.....	Dutch reports.....	A two-fathom shoal shown on the same chart, with a (?).
881	Heroine Reef.....	3 36 00 S.	107 45 00 E.	.....	Horsburgh, II, p. 539.....	The chart of the Java Sea, by Lieuts. Smits and Carnbee, (Neth. Navy,) exhibits this shoal in the reported position, while Horsburgh places it in 3° 33' 30" S., 107° 52' E., as extensive, and with breakers. The Heroine passed it within 1½ miles, and then the two-peaked mountain on Billiton bore N. N. W., and a small island N. E. by E. ½ E. Shoe Island was seen from the mizzen rigging, bearing S. E.
882	Reef in the Moluccas.	3 38 00 S.	126 00 00 E.	.....	Dutch reports.....	Shown as uncertain on the chart of the Molucca Islands, by Lieut. Gregory, (Neth. Navy, 1847.)
883	Reef in the Moluccas.	3 38 00 S.	122 29 30 E.	.....	Dutch reports.....	Shown as doubtful on the chart of the east coast of Celebes, by Lieuts. Smits and Carnbee, (1855.)
884	Mary Goddard Reef, in Gaspar Straits.	3 38 00 S.	107 07 00 E.	.....	Dutch reports.....	With one fathom water over it; is marked, with a (?), on the Dutch chart of Gaspar Straits, by Lieut. Zuidewijn.
885	Bank.....	3 45 00 S.	125 07 00 E.	.....	Ship Phantom.....	Six fathoms water. It does not appear to be laid down on charts.
886	Hector Bank.....	3 46 00 S.	110 04 30 E.	.....	Dutch reports.....	Soundings in 3½ fathoms are shown, with a (?), on the chart of the west coast of Borneo, by Lieut. Edeling, (Neth. Navy, 1862;) Horsburgh also mentions it, (II, p. 535.)
887	Bank or Island.....	3 50 00 S.	117 46 00 E.	.....	Dutch reports.....	Shown as questionable on the chart of the Macassar Straits, by Lieut. Edeling, (Neth. Navy, 1862.)
888	Small Island.....	3 50 00 S.	155 46 00 E.	.....	China Mail.....	Is not laid down there on charts.
889	Bank in the Moluccas.	3 50 00 S.	127 12 00 E.	.....	Captain Wittingham, of the ship Helen Stuart. (Naut. Mag., 1846, p. 87.)	Captain Wittingham reports discolored water, and the sea appearing ready to break, between Amblan and Bouru, Banda Sea, extending from the north point of Amblan as far as he could see. No danger is shown there on charts.
890	Island.....	3 55 00 S.	170 15 00 W.	.....	Captain Stuart, of the ship Co- rinthian. (Honolulu Friend, Nov., 1853.)	An island or reef is reported in this position, extending east by south and west by north 15 miles, 3 miles broad, with only a small part above water. Charts do not represent any danger there. It may be the Sydney Island, reported by natives to Lieut. Wilkes as situated about 60 miles to the eastward of Hull's Island.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
891	Independence Island.	0 1 "	0 1 "	0 1 "	0 1 "	{ Naut. Mag., 1860, p. 335. New York Tribune, 1858. Capt. Lord Byron (Findlay's South Pacific Direc- tory, p. 592.) }	{ The Nautical Magazine describes Independence Island as 7½ miles long and 5 miles broad, with immense deposits of guano on it. <i>Remains of a coral stone building</i> were found at the extreme eastern end, with <i>fresh water</i> , and good anchorage on the west and southwest sides in from 10 to 30 fathoms water. Malden Island, discovered by Lord Byron, 1825, is said to be of low coral formation, about 12 or 14 miles in extent, with several thick clumps of trees, and <i>some large square areas, raised three feet above the ordinary surface, supported by blocks of wrought coral</i> , and with ponds of <i>fresh water</i> . Blunt's chart of the South Pacific gives them both on the same parallel, respectively, in 154° 15' and 154° 50' W. The British Admiralty chart has, besides Malden Island proper, also the Malden Island reported by the New York Tribune, with a (?).
892	Malden Island.....	4 01 00 S.	154 50 00 W.	} 4 00 00 S.	154 55 00 W.		
893	Do.....	4 15 00 S.	155 00 00 W.				
		4 00 00 S.	155 00 00 W.				
894	Shoal in Java Sea....	4 02 00 S.	106 48 00 E.			Capt. Adams, of the ship Ocean Mail. (Merc. Mar., 1860, p. 349.)	Capt. Adams passed, about 50 miles S. W. by S. from Enbleton (Shoalwater) Island, a wreck apparently upon a shoal, which the Ocean Mail crossed in 7 fathoms water 1 mile from the wreck. No danger or bank is shown there on charts.
895	Martaban Reef, in Macassar Straits.	4 11 00 S.	117 10 00 E.			H. B. M. sloop-of-war Martaban... (Ann. Hydr., XIII.)	Coral reef, with about 4 fathoms over it, seen by the Martaban. Is noted as questionable by British Admiralty and Dutch government charts.
896	Reef.....	4 16 00 S.	149 08 00 E.			Naut. Mag., 1848, p. 574.....	Very nearly the site of Gipp's Island. (See 907.)
897	Shoal in Java Sea....	4 17 00 S.	106 24 00 E.			Dutch reports.....	Three fathoms water; shown with a (?) on the chart of the Java Sea, by Lieuts. Smits and Carnbee, (1861.)
898	Elizabeth Island.....	4 18 00 S.	172 35 00 W.			Imray's Chart (Naut. Mag., 1856, p. 260; Wilkes' Narr., III, p. 370.)	Capt. Fox, of the ship Mary Catharine, passed 6 miles west of this site without finding any indications of an island. Most probably it is intended for Hull's Island, established by Lieut. Wilkes in 4° 29' 45" S., 172° 21' W. On Blunt's Pacific Ocean chart this island is placed 60 miles farther to the eastward.

Coral reef, without discoloration, and with 12, 8½, 18 and 13 feet water, Reyhock bearing N. 32° E., Batoe Harbor N. 78° ½ E., and the north point of Panjikian N. 79° E. It is indicated on the Dutch chart of the Macassar Straits, by Lieut. Edeling, (Neth. Navy, 1860,) on the north edge of a very extensive bank full of such dangers.

Sidney Island was reported by natives to Lieut. Wilkes to exist 60 miles east of Hull Island. (See Nos. 890 and 898.) It does not appear to have been established with any certainty. British authorities (Raper and Admiralty chart) place it in 4° 26' S., 171° 18' W. Blunt's chart places it 60 miles more to the eastward.

{ Simpson Islands, reported by Capt. Simpson to be a group of 6 low coral islands, covered with cocoanut trees, and inhabited, appear to have also been seen by Capt. Brown, of the ship Gray Feather, but 10 miles higher north, (60 miles N. E. of the Lord Howe Islands.) The position of Capt. Simpson was carefully examined by Capt. Symington, who could not find islands there, and thinks that Capt. Simpson had seen and misplaced the Tasman Islands, discovered in 1643, and placed by Capt. Welling, 1824, north of Lord Howe's Islands, in 4° 29' S., 159° 28' E., nearly in the same position as Capt. Symington's observations gave. Findlay is also inclined to adopt the identity, and Raper, as well as some charts, omit the Simpson Islands. But the report of Capt. Brown, corroborating that of Capt. Simpson, except in latitude, is too distinct to warrant such an omission before Captain Brown's position has also been examined. The Tasman Group is a lagoon of elliptic form, the longer axis north-west and southwest, 9½ miles long; the shorter 6½, with an opening at the northwest end of three-quarters of a mile in width. The British Admiralty chart places the north point of the group in 4° 30' S., 159° 20' E. Blunt calls it Welling Group, and shows also the Simpson Islands under the name of Lemaire and Tasman Group.

Is another position for Hull's or for Sidney Island. (See 898.)

A 4-fathom cast, shown on the Dutch chart of the Java Sea, by Lieuts. Smits and Carnbee, (1861.) It requires confirmation.

899	Shoal in Macassar Straits.	4 21 00 S.	119 30 00 E.	.....	.....	Capt. Palm, of the Neth. war brig Rembang. (Ann. Hydr., 1861, III, p. 188.)
900	Sidney Island	4 24 00 S.	171 00 00 W.	.....	.....	New York Tribune, 1858.....
901	Simpson Island	4 52 00 S.	160 12 00 E.	.....	.....	Capt. T. B. Simpson.....
902	Coral Islands	4 42 00 S.	160 15 00 E.	.....	.....	Capt. Brown, of ship Gray Feather.
903	Lemaire and Tasman's Islands, north end.	4 26 00 S.	159 30 00 E.	.....	.....	Capt. Symington, of ship Northfleet.
904	Welling Group	4 29 00 S.	159 28 00 E.	.....	.....	Ship Shirley..... (Naut. Mag., 1848, p. 574, and 1865, p. 225; Boston Shipping List and Findlay's South Pacific Directory, p. 618.)
905	Charlotte Island.....	4 29 00 S.	171 55 00 W.	.....	.....	China Mail
906	Bank in Java Sea.....	4 31 00 S.	114 47 00 E.	.....	.....	Capt. Derand.....

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
907	Volcanic Shoal.....	4 32 00 S.	149 04 00 E.	4 37 45 S.	174 40 15 W.	Capt. Lass, of the brig Wailua. (Naut. Mag., 1863, p. 53; Findlay's South Pacific Directory, p. 635.)	Capt. Lass, of the brig Wailua, reports: "November 5th discovered a shoal to the westward of New Britain, N. W. of Nord Island, five miles off shore. This shoal is about half a mile wide and five miles long, having the appearance of a half moon. We lowered a boat and examined it, finding about 10 feet water thereon. On approaching this shoal the man at the mast-head cried, 'There she blows;' but on nearing it we discovered it to be a boiling spring, constantly emitting water about 150 feet in the air, and on first sighting this it had just the appearance of a whale spouting. This spring can be seen about 20 miles off." No chart shows this shoal, but Gipp's Island is placed about 30 miles N. N. E. of North Island, in 4° 15' S., 149° 16' 30" E. Gipp's Island was discovered, in 1842, by Capt. F. J. King, who describes it as 3 miles in circumference, surrounded by a reef, which on the eastern side extends 3 miles from the land, and well inhabited. On the east side of this island Capt. King says there is a boiling spring near the beach, and another on the southwest side, which threw up boiling water at times upwards of 20 feet. Capt. Lass' shoal may be a new crater of volcanic structure, of which Gipp's Island is one outlet.
908	Island.....	4 43 00 S.	174 40 00 W.	4 37 45 S.	174 40 15 W.	(China Mail.....	{ In all probability all these are positions for one and the same island—that by the U. S. Exploring Expedition being the most reliable. It is a discovery of Capt. Gardner—a low coral island, with a shallow lagoon and some high trees, visible 15 miles. Capt. Fox, of the ship Mary Catharine, passed within 15 miles to the eastward of the site (given to Latitia Island by Imray) without perceiving any indications of land. The positions cited by the New York Tribune are entirely unreliable. (See 855.)
909	Gardner Island.....	4 39 00 S.	174 45 00 W.			U. S. Consul Pritchard, at Apia..	
910	Do.....	4 37 42 S.	174 40 15 W.			U. S. Exploring Expedition.....	
911	Maria Labitia Island.	4 40 00 S.	173 29 10 W.			New York Tribune, 1858.....	
912	Do.....	4 47 00 S.	173 20 00 W.			Imray's Chart.....	
913	Kemin's Island.....	4 41 00 S.	173 44 00 W.			New York Tribune, 1858.....	
914	Baker Shoal, in Macassar Straits.	4 42 00 S.	117 05 15 E.			(Naut. Mag., 1856, p. 260, 1859, p. 500; Wilkes' Narr., III, p. 368; Findlay's S. Pac. Dir'y, p. 596.) Capt. Baker, of the ship Pudsey Dawson. (Merc. Mar. Mag., 1863, p. 93.)	With the island of Nuevo Seras bearing S. by E. † E., about 20 miles distant, Captain Baker saw bottom (rocky coral) under the ship, and sounded for 2 miles in 13, 14, 10, 8, 7, 6, 5, 4½, 4½, 5, 6, 10, 13, 15, 14, 16, 14½, 17½, 19, 19½, 20½, 25, 20, 30 fathoms. There is perhaps less water on this danger than obtained. On the latest British Admiralty chart the shoal is shown with a (?). On the Dutch chart of Macassar Straits, by Lieut. Edeling, (1860,) bearings and distances would place it in 4° 46' S., 116° 58' E.

915	Reef in Macassar Straits.	4 43 00 S.	118 55 00 E.	.....	Neth. war steamer Merapi..... (Ann. Hydr., XIII.)	The steamer struck upon a reef, when the westernmost Kapo Pasang bore between E. and E. S. E. 90° E., 5 miles distant, and the southernmost island between E. 190° 30' S. and S. 65° E. The reef is steep to, with 5½ feet water on it, and 39 and 50 fathoms two ship's lengths off. On British Admiralty charts it is placed more to the westward, on Dutch charts more to the eastward, of this position.
916	Bampton Bank.....	4 46 00 S.	114 47 00 E.	.....	Dutch report.....	Soundings of 2 fathoms water are shown by the Dutch chart of the Java Sea, by Lieuts. Smits and Carnbee, in this position; they require corroboration.
917	Mortlock or Cocos or Hunton Island.	4 48 00 S.	157 00 00 E.	.....	Findlay's South Pacific Directory, p. 618.	These islands appear not to have been seen since their discovery by Capt. Mortlock, of the ship Young William, in 1795, and their position requires better authority.
918	Rock in Java Sea.....	4 49 00 S.	106 19 00 E.	.....	Capt. Scudder, of ship Comorro....	Capt. Scudder reports that he fell in with a rock, 10 feet above the water, bearing N. N. E. (true) from the Two Brothers, distant 24½ miles. It has not been seen by anybody else, and its existence is rather improbable. English charts do not show it. On the Dutch chart, by Lieuts. Smits and Carnbee, a danger is marked in 4° 50' S., 106° 14' 30" E., evidently intended for this.
919	Clifton Shoal.....	4 59 00 S.	106 04 15 E.	.....	Capt. Beazley, of the ship Clifton... (Naut. Mag., 1857, p. 330; Horsburgh, II, p. 4; Ann. Hydr., V, p. 5.)	The Clifton struck, and sounded (one cast) in a quarter less four fathoms, when the Brothers, in sight from up a few ratlines of the mizzen rigging, bore S. ½ E., distant about 4 leagues, and a high hill in Sumatra, with several peaks, S. W. ½ W. British Admiralty charts show it in the position as reported. The chart of the Java Sea, by Smits and Carnbee, places it in 4° 50' S., 106° 02' E.
920	Friendsbury Reef.... Do..... Do.....	5 00 00 S. 5 00 00 S. 5 00 00 S.	159 10 00 E. 159 19 00 E. 159 20 00 E.	} 5 00 00 S. 159 16 00 E.	{ Horsburgh, II, p. 804..... Findlay's S. Pac., p. 618..... Naut. Mag., 1848, p. 574.....	{ A dangerous coral reef, with a surf breaking on it, on which a whaleship of this name is said to have been wrecked.
921	Bank in Java Sea....	5 02 00 S.	114 21 00 E.	.....	Dutch reports.....	Soundings of 2½ fathoms shown, with a (?), on the chart of Lieuts. Smits and Carnbee, (Neth. Navy, 1861.)
922	Reef in Java Sea.....	5 14 00 S.	113 24 00 E.	.....	Ship Tartar.....	{ The master of the Tartar reports a reef, or rather a ledge of rocks, nearly awash, extending southeast and northwest about a cable's length, with deep water all around it. He placed it by good observations, and believes it to be distinct from the Arrogant Shoal, which has an extent of half a mile in the same direction, with 6 feet of water on it. Charts generally show only the Arrogant Reef.
923	Arrogant Reef, in Java Sea.	5 12 00 S.	112 56 00 E.	.....	Horsburgh, II, p. 590.....	

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
924	Dolphin Rock, (in the Java Sea.)	5 19 00 S.	116 05 00 E.	0 ' "	0 ' "	Capt. Ropez, of the bark Fenelon.	{ Dolphin's Rock or Shoal, where the ship of this name grounded, and said to be nearly even with the water's edge, is differently placed on charts. Capt. Ropez reports to have seen it, or a coral rock, six feet above the water, of about the diameter of a ship's beam, when Knob Hill, in Sumatra, bore W., and the western one of the Brothers N. $\frac{1}{2}$ E. Other reports place it S. S. W. of the Southern Brother, distant from it 8 miles.
925	Dolphin Rock, (in the Java Sea.) "P. D."	5 15 30 S.	106 08 00 E.			British Admiralty chart.	
926	A Rock.	5 17 30 S.	106 02 30 E.			British Admiralty chart.	
927	Dolphin Rock.	5 17 00 S.	106 07 00 E.			Dutch chart of Sunda Straits, by Dyserink, 1862.	
928	Reef, (?)	5 19 00 S.	106 02 00 E.			Do .....do (Horsburgh, II, p. 5; Merc. Mar. Mag., 1854, p. 197.)	
929	Island.	5 23 00 S.	173 25 00 W.			Wilkes' Narr., V, p. 5.	{ Both these are positions on some old charts, and still retained by some late editions. The first position was examined by the Peacock and the Flying Fish, of the U. S. Exploring Expedition; the other by Capt. Fox, of the ship Catharine; but no indications of land or danger were found.
930	Rock.	5 40 00 S.	173 31 00 W.			Naut. Mag., 1856, p. 260.	
931	Bank in Java Sea.	5 25 00 S.	106 11 00 E.			American ship Antelope. (Ann. Hydr., XIII, p. 295.)	{ The Antelope saw the sea breaking on a bank, with 6 fathoms, and probably less, water on it, bearing S. 12° W. from the Lynn Bank, 12 miles distant. This may probably be another position for the Dolphin Rock, (No. 924.) No danger is shown there on charts.
932	Arabia Bank.	5 25 00 S. 5 22 00 S.	127 04 00 E. 126 53 00 E.			French charts. Capt. Guion, of the French bark Aurelia. (Ann. Hydr., IV, p. 15.)	
933	Reef in the Molucca waters.	5 25 00 S.	132 11 00 E.			Dutch reports.	{ Two reefs, shown (as reports) on the Dutch chart of the Molucca Islands, by Lieut. Gregory, (Neth. Navy.) They require corroboration.
934	Do.	5 28 00 S.	132 30 00 E.			Dutch reports.	
935	Coral Bank.	5 26 00 S.	106 34 00 E.			Ann. Hydr., 1864, III, p. 198.	{ Both these authorities report the loss of the English bark Surat on a coral bank, with 2½ fathoms water over it, under the same bearings, viz: Islet to the west S. 84° 22' W., Islet to the north N. 22½ W., and Islet to the north-east N. 61° 52½ E.; but they give quite different astronomical positions—that of the Annales Hydrographiques would be to the eastward of the Thousand Islands, that
936	Coral Bank.	5 26 00 S.	112 46 36 E.			Naut. Mag., 1865, p. 52.	

of the Nautical Magazine to the northward of the Bawean Islands. Near both positions islands such as those referred to do not exist. The danger may perhaps be identical with a rock shown on the chart of the Sunda Straits, by Lieut. Dyserink, (Neth. Navy, 1862,) in 5° 28' 45" S., 106° 28' E., where the bearings may be traced, at least approximately.

The Dutch chart of the Sunda Straits, just alluded to, shows there Jason Reef, with a (?). The Jason is said to have been lost 5 miles W. N. W. from the westernmost of the Thousand Islands, and 6 leagues S. W. by S. from the North Watcher. The danger has been searched for there without finding it.

With Bawean Island S. E. by S., breakers were seen bearing W. by N., 6 miles distant. The British Admiralty chart of the Java Sea shows them in 112° 26', and the Dutch charts, by Lieuts. Smits and Carnbee, in 112° 23' 30" E.

Two cables from shore, in the depth of Lompony Bay, there is a reef, with 4 and 8 feet water over it, the west point of the easternmost Chondong Island bearing S. 39° E., (true,) the west point of Pulo Tagal S. 6° W., the south point of Pulo Passagan W. 7° N., and Monkey Point N. 10° 45' E. The reef is much discolored, and has a circumference of 7 fathoms; close to, south of it, are 7 fathoms water, and to the eastward 7½ fathoms.

The principal charts lay down a shoal 10 to 20 miles more to the southwestward.

A shoal, partly above water, with breakers, about one-quarter of a mile in extent, West Island bearing N. N. E. ½ E., about 2 miles distant. The correct position by this bearing would be 5° 30¾' S., 106° 21¼' E., where the latest British Admiralty chart places the shoal. The Dutch chart, by Lieut. Dyserink, (1862,) does not show it.

A bank three-quarters of a cable long, with the westernmost of the Thousand Isles E. 4° N., 2 or 3 miles distant, and the west point of Great Tidong bearing S. by E. ½ E. It is shown by the British Admiralty, but not on the Dutch chart.

Captain Lass reports the discovery of a shoal, half a mile in circumference, and covered with trees, between Rooke and Lotten Islands, which situation would place it in about 5° 30' S., 147° 48' E., and not in the astronomical position given by Capt. Lass. No such shoal is marked on charts.

37	Jason Rocks.....	5 27 00 S.	106 17 00 E.	.....	Ship Jason (Horsburgh, II, p. 5.)
938	Bank in Java Sea...	5 28 00 S.	112 28 00 E.	.....	Dutch bark Osterling..... (Ann. Hydr., XIII, p. 296.)
939	Reef in Lompony Bay	5 28 00 S.	105 16 30 E.	.....	Ann. Hydr., XIII, p. 297.....
940	Reef.....	5 30 00 S.	175 00 00 W.	.....	China Mail Capt. Keeman, of ship Coventry... (Merc. Mar. Mag., 1858, p. 347; Horsburgh, II, p. 2.)
941	Coventry Shoal, in Java Sea.	5 30 30 S.	106 25 30 E.	.....	Dutch ship Anna Poulowna..... (Ann. Hydr., XIII, p. 295.)
942	Bank in Java Sea...	5 39 00 S.	106 26 00 E.	.....	Capt. Lass, of the brig Wailua.... (Naut. Mag., 1863, p. 53.)
943	Shoal	5 40 00 S.	146 18 00 E.	.....	

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
944	Low Island.....	0 1 "	0 1 "	0 1 "	0 1 "	San Francisco Herald..... Arrowsmith..... English whaler Eagle..... Many charts..... (Findlay's South Pacific Directory, p. 593.)	{ These, most probably, are positions for one and the same island—the Starbuck, discovered by Lord Byron in 1825. Blunt's general chart of the Pacific shows only one island for all of them, in 5° 20' S., 155° 55' W. The British Admiralty chart shows the three last named.
945	Starbuck Island.....	5 40 00 S.	155 55 00 W.	.....	.....		
946	Volunteer Island.....	5 24 00 S.	155 50 00 W.	.....	.....		
947	Starbuck Island.....	5 09 00 S.	155 18 00 W.	.....	.....		
		5 58 30 S.	155 58 00 W.	.....	.....		
948	Bank	5 45 00 S.	118 30 00 E.	.....	.....	Dutch reports.....	The chart of Macassar Straits, by Lieut. Edeling, (Neth. Navy, 1860,) shows, on a bank with 6, 9, and 10 fathoms water, a rock, by a cross, but adds a (?) as a mark of its uncertainty.
949	Coral Reef.....	5 46 30 S.	105 17 15 E.	.....	.....	Neth. Commission for Correction of Sea Charts. (Ann. Hydr., XIII, p. 294.)	A coral reef in the Goendy Straits, Lampony Bay, with 10 feet water on it, and 12 fathoms all around, 38 fathoms long, and not discolored, with the following true bearings: Highest point of Susserat Island S. 60° W.; west point of Goendry Island S. 41° W.; north point of the same S. 49° E.; and the centre of Sangamam S. 3° E. The reef is shown on the latest Dutch charts.
950	Coral Reef in Karimon, Java.	5 45 00 S.	109 58 00 E.	.....	.....	Neth. Commission for Correction of Sea Charts. (Ann. Hydr., 1863, IV, p. 560.)	Two cables long north and south, with 1 fathom water over it, Pulo Katang bearing S. 62° E., Karang Bessie N. 17° W., and Pulo Njamock E. 17° S.
951	Coral Reef in Karimon, Java. (about)	5 46 00 S.	109 59 00 E.	.....	.....	Do.....	Uncovered at low water, 3 cables long from north-northeast to south-southwest, with Pulo Njamock E. 8½° S., Pulo Katang N. 17° E., and Karang Katang W. by S.
952	Coral Reef in Karimon, Java. (about)	5 48 00 S.	110 00 00 E.	.....	.....	Do.....	A reef of sand and coral, extending from Pulo Njamock S. 62° W., 3 miles. On the extreme point of the reef Pulo Katang bears N. 19° E., Karang Bessie N. 19° W., and Pulo Krabat Ketjil E. S. E. Karang Bessie is an isolated sand-bank, of 1½ miles in extent from north-northeast to south-southwest.
953	Sand-bank in Karimon, Java. (about)	5 49 00 S.	110 18 00 E.	.....	.....	Do.....	Covered 4 feet, extending northeast and southwest 4 cables, with the western extremity of Great Karimon bearing E. 7½° N., Pulo Glean and Pulo Boerang, in range, S. 48° W., and Pulo Tjamara Ketjil N. 30° W.

954	Sand-bank in Karimon, Java. (about)	5 50 30 S.	110 18 30 E.	.....	Neth. Commission for Correction of Sea Charts. (Ann. Hydr., 1863, IV, p. 560.)	Is 3 feet above water, extending east-southeast and west-northwest 3 cables, the western extremity of Great Karimon bearing from the reef N. 25° E., Pulo Boerang W. 17° S., and Pulo Glean W. 7° 30' S. The five last-named dangers are recent Dutch discoveries, and are to be added to those enumerated by Horsburgh, (1864, II, p. 589;) they are not found on the charts.
955	Windsor Rock.....	5 53 00 S.	105 54 00 E.	.....	Captains Hilton, of the ship Helena, Justice, of ship Philomela, and Young, of ship Ajax. (Naut. Mag., 1845, p. 99; 1847, p. 322; and 1851, p. 331.)	All these authorities agree in placing a small bank, with 2½ fathoms water on it, and 12 to 18 fathoms all around it, under the following bearings: The Button or Topper's Hoedge S. 63½° E.; the east end of Twart-the-Way S. 27½° W.; the north end of the same S. 53° W.; the south point of Zuitphen Island just on with the north part of Pulo Bessie. The reported astronomical position is that given to it in the Dutch chart of Sunda Straits, by Lieut. Dyserink. Other Dutch charts, and that of the British Admiralty, place the bank, with all its surroundings, 1 mile further south.
956	Gorter's Rock.....	5 57 00 S.	106 45 00 E.	.....	Capt. Gorter, of the ship Maria Christina. (Naut. Mag., 1851, p. 277.)	The Maria Christina is said to have touched in 3½ fathoms water, when the middle of the Island of Middleburg bore south, and Klein-Kombuis W. ½ N. Charts place the danger 3 miles to the westward of the reported position, 106° 42' E.
957	Rosalia Rock.....	5 57 00 S.	114 11 00 E.	.....	Horsburgh, II, p. 591.....	This rock is reported to lie S. S. W. ½ W. from the Great Solombo, and to be 6 feet above the sea, of a reddish sand, and steep to. The Dutch do not believe it to exist. (See chart of the Java Sea, by Lieuts. Smits and Carnbee, 1861.)
958	Shoal in Sunda Str'ts.	6 01 00 S.	105 56 00 E.	.....	Merc. Mar. Mag., 1860, p. 123.....	A Dutch shipmaster reports a shoal midway between the Gap and the mainland of Java, Anjer Point bearing S. W. and the Gap N. W. by W. ½ W. Dutch charts show it there.
959	Loper's Island.....	6 07 00 S.	127 45 00 E.	.....	Capt. Sprague, of ship Mercator..	Not confirmed by any other authority, and is improbable.
960	Sepper's Island.....	6 07 00 S.	177 40 00 E.	6 10 00 S. 177 41 00 E.	China Mail	Is the Speiden or Lynn Island of Lieut. Wilkes, and placed by him in 6° 10' S., 177° 41' E.
961	Hoendekerken Shoal.	6 13 00 S.	105 22 15 E.	.....	Ann. Hydr., XI, p. 360, and XIII, p. 294.	This reef, shown on old Dutch charts, and a long time considered doubtful, seems really to exist. The Dutch ship Abdul Hassim struck upon it in 1848, and a Hamburg ship in 1851. Ensign Danker, of the former, places it N. 41° E. (true) from Krokatea, distant 6 miles, where Dutch charts show it, with a (?). The British Admiralty chart does not show it.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
962	4½-Fathom Bank.....	6 28 00 S.	115 20 00 E.	6 28 00 S.	115 20 00 E.	Dutch reports.....	{ Two dangers, shown (as reported) on the chart of Macassar Straits, by Lieut. Edeling, (Neth. Navy, 1860,) require confirmation.
963	Reef.....	6 30 00 S.	115 29 00 E.	6 30 00 S.	115 29 00 E.	Dutch reports.....	
964	Bank.....	6 34 00 S.	116 42 00 E.	6 34 00 S.	116 42 00 E.	Dutch ship William I. (Ann. Hydr., 1861, III, p. 187.)	
965	Islands.....	6 36 00 S.	166 00 00 W.	6 36 00 S.	166 00 00 W.	Whaler report.....	A bank, with 18 to 30 feet over it, on the same chart, also needs better authority. It is not shown on the British Admiralty chart.
966	Shoal in Sunda Str'ts.	6 38 30 S.	105 23 45 E.	6 38 30 S.	105 23 45 E.	Merc. Mar. Mag., 1859, p. 28.....	Blunt's chart of the Pacific shows an island there, but the British Admiralty chart does not. An island is reported on the same meridian, on the same <i>northern</i> parallel, (see No. 555.) In one of these two reports the longitude is erroneously given, and by this error an island which does not exist has been placed on some charts.
967	Reef.....	6 39 00 S.	115 20 00 E.	6 39 00 S.	115 20 00 E.	Neth. war steamer Soembing (Ann. Hydr., 1863, IV, p. 560.)	Captain Fellows, H. B. M. Navy, reports: "Welcome Bay, on the southern shore of Sunda Straits, appears full of dangers not surveyed. A shoal, with 12 feet on it and 6 fathoms close to, extends between Second Point and Tambiang Point to the distance of half a mile off shore." Charts do not show it.
968	George Brown Shoal.	6 44 00 S.	121 00 00 E.	6 44 00 S.	121 00 00 E.	Capt. Asa Higgins, of the ship George Brown.	Soundings in 21 feet, when the west end of Kangeang bore S. 43° W., and the east end of Puliat S. 48° E., are shown on the Dutch chart of Macassar Straits, alluded to above. It requires confirmation.
969	Emp'rof China Shoal.	6 44 00 S.	124 17 00 E.	6 44 00 S.	124 17 00 E.	Dutch reports, 1852.....	{ This shoal, on which the George Brown is said to have been lost in 1851, appears not to be marked on charts.
970	Nieuwerkerke Shoal..	6 39 00 S.	124 42 00 E.	6 39 00 S.	124 42 00 E.	Dutch reports, 1852.....	
971	Richard Wall Shoal..	6 50 00 S.	121 29 00 E.	6 50 00 S.	121 29 00 E.	Dutch reports, 1841.....	
972	Rocks in Bougainville Straits. (about)	6 50 00 S.	156 20 00 E.	6 50 00 S.	156 20 00 E.	Capt. Cheyne. (Naut. Mag., 1848, p. 575; Findlay's S. Pacific Directory, p. 614.)	All these dangers, shown (in the charts of these waters, east of Java) by H. D. A. Smits, 1861, need to be examined and properly established. Rocks were seen under the bottom of the ship, and a cast of 9 fathoms found midway between Cape Alexander and Choiseul Bay, 5 miles off shore. Capt. Cheyne believes this vicinity to abound in similar dangers, and advises ships not to approach nearer to the coast than 5 miles until the straits are properly examined.

973	Coral Reef.....	6 52 00 S.	115 00 30 E.	.....	Dutch ship Adriana Petronella... (Ann. Hydr., XIII, p. 296.)	The Petronella struck on a reef, 11 to 13 fathoms long, with 13 and 16 feet water over it, and 56 fathoms close to, no breakers or discoloration visible, when the northwest point of Kangeang bore E. 4° N., 18 miles distant, and the southwest point E. 20½° S. British Admiralty charts show 13 feet in 6° 53' S., 114° 57' E., and a reef, with a (?), in 6° 51' S., 114° 55' E. Dutch charts place the reef variously in 6° 50' S., 114° 55' E., and 114° 58' E.
974	Rock in Sunda Straits	6 55 30 S.	105 48 00 E.	.....	Dutch reports.....	Shown, with a (?), on the chart of Sunda Straits, by Lieut. Dyserineck, Neth. Navy, 1861.
975	Shoal	6 57 00 S.	121 39 00 W.	.....	New York Herald, Feb'y, 1858.....	Not given by any authority.
976	Latour-du-Pin Reef, near Solomon Archipelago.	6 59 00 S.	158 52 00 E.	.....	Capt. Favreau..... (Ann. Hydr., 1864, I, p. 235.)	Awash, 7 or 8 miles in extent, 30 miles N. W. of Isabella Island, Solomon Archipelago. Is not shown on charts.
977	Fletcher Island.....	7 02 00 S.	173 22 00 W.	.....	Whaler report..... (Wilkes' Narr., V, p. 5.)	Searched for, and not found, by the U. S. Exploring Expedition.
978	Reef	7 04 00 S.	120 28 00 E.	.....	Lieut. Matthissen, of the ship <i>Ve-suvius</i> , and Capt. Fels, of ship <i>Scottish Lassie</i> . (Ann. Hydr., VIII, p. 136, and 1861, III, p. 187.)	Lieut. Matthissen discovered a bank under the following bearings: northeast point of Pulo Sisir N. 30° E., south point of Tanah Dampeah (Schiedam Island) S. 79° E., west point of Kalao S. 65° E., Peak of Dampeah N. 34½° E. Capt. Fels reports a reef in the position given opposite, with 11 feet water over it, which probably is the same as that discovered by Lieut. Matthissen. British Admiralty charts show it in Capt. Fels' position; Dutch charts in 7° 08' 30" S., 120° 25' 30" E.
979	Netherland Island	7 10 00 S.	177 33 15 E.	.....	Horsburgh, II, p. 805.....	{ In all probability these are positions for an island which was discovered in 1825 by the Dutch frigate <i>Reigersbergen</i> . It is said to be crescent-shaped, extending 4½ miles north and south by less than a mile in breadth, to be wooded, and 80 feet high. It is marked on charts generally in 7° 10' S., 177° 30' E.
980	Lowendahl Island	7 13 20 S.	177 14 30 E.	.....	Capt. Cramtschenks, Russ. Navy.....	
981	Egg Island	7 20 00 S.	177 20 00 E.	.....	Capt. Sprague, of ship <i>Mercator</i> (Findlay's S. Pac. Direc'y, p. 598.)	
982	Mitchell's Group.....	7 09 00 S.	179 47 00 E.	.....	China Mail.....	No group of islands is shown there or in the vicinity on charts. Tracy Island, 7° 28' S., 178° 55' E., the nearest shown on charts, is not a group, but a single island. (See No. 984.)
983	Galt Reef	7 16 00 S.	114 44 00 E.	.....	Capt. Galt, of the brig <i>Islay</i> (Naut. Mag., 1844, p. 241.)	The Islay struck upon a coral reef in 13 feet water, the southeast end of the small island of Raas (probably Tondo, the small island east of Raas) bearing N. W. by N., distant about 5 miles. Dutch charts show it as uncertain in position, (ranging from 114° 43' to 114° 47' E.)

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
984	Trycey's Island.....	0 ' " 7 30 00 S.	0 ' " 178 46 00 E.	0 ' "	0 ' "	China Mail.....	Is the Tracy Island or Oaitapn, established by the Peacock, of the U. S. Exploring Expedition, in 7° 28' S., 178° 55' E.
985	1½-fathom Bank.....	7 30 00 S.	113 10 00 E.	.....	.....	Dutch reports.....	Shown on the chart of the Java Sea, by Lieuts. Smits and Carnbee, 1861. It requires confirmation.
986	Jessie Reef.....	7 33 00 S.	123 54 00 E.	.....	.....	Horsburgh, II, p. 684.....	Is shown on the Dutch chart of the waters east of Java, by H. D. A. Smits, in 7° 32' S., 123° 52' E. It is said to lie 24 miles northeast of Komba.
987	Reef.....	7 43 00 S.	120 27 00 E.	.....	.....	Dutch reports.....	An extensive reef is marked, with a (?), on the chart of Macassar Straits, by Lieut. Edeling, (Neth. Navy, 1860.)
988	Lass Shoal, Solomon Group.	7 45 00 S.	159 54 00 E.	.....	.....	Capt. Lass, of the brig Wailua.... (Naut. Mag., 1863, p. 153.)	The brig Wailua discovered there a shoal half a mile wide and in length as far as could be seen from the mast-head, running northwest and southeast. The brig passed over it and found 11 fathoms water, but a mile and a half distant from this spot the water had a milky appearance, indicative of less depth. The shoal appears not to have been placed on charts.
989	Bangalore Shoal, or Jaager's Reef.	7 42 00 S.	121 57 00 E.	.....	.....	{ Naut. Mag., 1853, p. 117..... Horsburgh, II, p. 681.....	{ This reef, on which the ship Bangalore was wrecked in 1802, is said to extend north and south about 3 miles and to be 2 miles broad, dry at low tide on the western part, with rocks resembling prows under sail. From the wreck on the shoal, Flores bore from S. W. to E. S. E., an island formed like a dome, S. S. W., distant 7 or 8 leagues, and an island, supposed to be Schiedam, N. W., distant 8 or 10 leagues. Lieut. Smits, in the Java Guide, thinks that the ship has been lost on the west part of Angelica Shoal, (see next number,) as Rusa Singuette appears at a distance like a dome, and several ships have made a fruitless search for dangers north-northeast of Rusa Radja. Dutch charts omit the reef, while the British Admiralty charts show it, with a (?).

(Notwithstanding a number of authentic reports, there much uncertainty in regard to this shoal on charts. A Dutch squadron, commanded by Lieut. Hoeft, in 1844, approached the southern end of the shoal within half a mile. At noon the sloop Arend had the reef bearing N. 79° E to N. 46° W., Rusa Liguette Peak S. 31° W., Rusa Radja Peak S. 49° W., Flores Head S. 63° E. Latitude observed, 7° 48' 39" S., and no soundings with 80 fathoms of line out. At the same time the schooner Janus sounded in 19 fathoms about half a mile to the W. N. W. The reef seemed to extend west-northwest and east-southeast about 3 miles, and appeared to be half a mile broad near its extremes, which are nearly even with the water, but at the centre only two cables broad. In 1846 the Neth. sloop-of-war Haai grounded near the southeast extremity, and got off with difficulty. When aground she had 1 fathom near the bow, 2 fathoms near the rudder, and 40 fathoms two ships' lengths to the N. N. E. Iron Head bore S. 62° 30' E., Ilimandiri Peak S. 52° E., Lobetobie Peak S. 32° E., Rusa Liguette Peak S. 39° W., Rusa Radja, indistinctly seen, S. W. ¼ W., and Kaloe Toca N. 55° W. Latitude observed, 7° 48' 30" S. The reef appeared to extend about 4 miles, and to be divided by two narrow channels, which traverse it north and south. Some dry rocks were seen in the centre. The Canut also grounded, in 1864, on the northeast end. Near her the reef was partially dry at low water spring tides, with 4½ feet rise and fall. The vessel at high water had 11½ feet water under her bow, 90 fathoms under the taffrail, and a few yards astern no bottom with 120 fathoms.

A small and low island shown thereabouts on charts; is uncertain in position, and probably of doubtful existence.

Shown, with a (?), on the chart of the Bali Straits, by Lieut. Swaan, (Neth. Navy, 1864.)

The Chieftain passed over the north end of a shoal and saw bottom in about 15 fathoms. This danger is not reported on any other authority.

Shown, with a (?), on the Dutch charts of the waters east of Java, by Lieut. H. D. A. Smits, 1861.

Captain Messende discovered a sandy island, 14 feet above the water, extending a quarter of a mile from southeast to northwest, 1 mile distant from the northeast extremity of Ombay. It is shown on Dutch but not on British Admiralty charts.

990	Angelika Reef, or Passier-Layer-an.	7 45 00 S. 7 48 30 S. 7 47 00 S.	122 18 00 E. 122 18 00 E. 122 18 00 E.	..... ..... .....	Horsburgh, II, p. 681. Naut. Mag., 1853, p. 117. Capt. Smerden, of the ship Canut.. (Merc. Mar. Mag., 1865, p. 60; Ann. Hydr., XXVII, p. 238.)
991	Gower Island.....	7 53 00 S.	160 30 00 E.	.....	Horsburgh, II, p. 802.....
992	Shoal	7 58 00 S.	114 30 00 E.	.....	Dutch report.....
993	Shoal	8 08 00 S.	160 15 00 E.	.....	Capt. Denning, of the schooner Chieftain.
994	Reef	8 09 30 S.	116 14 00 E.	.....	Dutch Reports
995	Sand-bank	8 10 00 S.	125 06 00 E.	.....	Capt. Messende, of the Dutch steamer Helmers. (Ann. Hydr., 1861, III, p. 187.)

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
996	Reef.....(about) and	8 15 00 S.	123 53 00 E.	.....	.....	Naut. Mag., 1847, p. 319. Horsburgh, II, p. 685.	(The ship Nabob reports as follows: "Oct. 12, 6 p. m.—East end of Pantar Island bore S. E. and Green Island S. by W., steering for the Alloa Passage. At 4.30 a. m. passed the latter island, saw the Flat Islands bearing W. S. W.; kept the ship away west, to give them a clear berth, and to pass between them and the Lambden shore, which is recommended by Horsburgh as being safe and clear. At 5 a. m. saw discolored water close to the bow, but before the vessel could be wore round she struck against an extensive coral reef, 4 miles in length northeast and southwest, and about 3 miles broad. At 4½ p. m., it being high water, backed off. At midnight, when the ship was in stays off Middle Island, coral rock was seen underneath the ship's bottom, the northeast point of the latter island bearing W. S. W., about 2 miles distant." These dangers appear not to be laid down on charts. Their position is deduced from the bearings.
997		8 20 00 S.	123 48 00 E.	.....	.....		
998	Clark's Reef.....	8 18 00 S.	139 50 00 W.	.....	.....	Findlay's South Pacific Directory, p. 590.	Requires examination. Admiral Du Petit Thouars sounded there to 200 fathoms; but since then the shoal has been reported repeatedly with as little as 16 feet.
999	Reef.....	8 19 00 S.	174 12 00 W.	.....	.....	Capt. Virgin, of the Swedish frigate Eugene.	Is not supported by any other authority, and not shown on charts.
1000	Shoal New Georgia...	8 21 00 S.	156 30 00 E.	.....	.....	Naut. Mag., 1848, p. 575.	5 fathoms, S. S. W. of the Eddystone Rock, distant from it 3 miles; shown by the British Admiralty, but not by Blunt's General Pacific Ocean chart. Findlay's Directory (edition of 1863) does not mention it.
1001	Stewart Islands.....	8 24 00 S.	163 02 00 E.	.....	.....	{ Horsburgh, II, p. 802. Findlay's So. Pacific Directory, 2d edition, p. 616.	{ By a typographical error, Findlay places these islands in 10 24' 24" S. The 1st edition (1851) gave the latitude correctly as 8° 24' S. Horsburgh states the islands to be three in number; Findlay gives five.
1002	Marex Island.....	8 25 00 S.	165 32 00 E.	.....	.....	China Mail	No islands or dangers shown there by charts.
1003	Reef.....	8 27 00 S.	121 21 00 E.	.....	.....	Dutch reports.....	Shown, with a (?), on the Dutch chart of the waters east of Java, by H. D. A. Smits, 1861.

{ The probable position is that given by the Porpoise, of the U. S. Exploring Expedition, where it is placed on the British Admiralty chart. Blunt's chart places it 21 miles further to the west.

No island or danger shown there by charts.

{ This large island, (40 miles in extent east by south and west by north,) discovered by Capt. Grimes, of the ship Woodlark, and first described by Capt. Hunter, is said to be well populated, and to contain a number of good harbors. It requires a thorough examination, and its position correctly laid down.

No island is shown near this position on charts; but on the same meridian in northern latitude (8° 54' N.) Barbary Island is placed by Blunt's and other charts, for which, however, no reliable authority can be found.

{ All these positions are believed to refer to one and the same lagoon, and that of the U. S. Exploring Expedition is thought to be the most correct. Lieut. Ringgold describes the island as 9 miles long northeast and southwest, of the usual coral formation, densely covered with trees, and with an extensive lagoon, into which a boat passage leads. It was inhabited by a very ferocious race. The position of Capt. Cash was searched by Lieut. Ringgold, but nothing was found there. Penrhyn's Island is given variously by charts. Blunt adopts Adm'l Krusenstern's position; Raper and the British Admiralty that of Lieut. Wilkes.

Said to extend 15 miles east by south and west by north, and to be 3 miles broad, a small part above the water, visible 18 miles. No such danger is marked near the reported position on charts, or reported by other authorities.

{ Mitchell's Group is shown on Blunt's chart in the Whaler's position, and on the British Admiralty chart (1865) in 9° 17' S., 179° 50' E., as "doubtful." It is not mentioned in Findlay's South Pacific Directory. Probably it is identical with Capt. Boissier's discovery, which is said to be covered with cocoanut trees, and claimed that its position is established by good forenoon and meridian observations.

The brig Chatham, Capt. Snow, was wrecked at a group of islands said to lie in the reported position, and to be inhabited by about 2,000 idolaters. No group of islands is known to exist there; probably it was one of the Union Group, 180 miles to the west, on which the vessel was lost.

1004	Duke of York Island.	8 30 00 S.	172 10 00 W.	8 36 00 S.	172 24 00 W.	{ New York Tribune, 1858. Wilkes' Narr., V, p. 5.
1005	Island.....	8 40 00 S.	137 30 00 W.			Whaler report.....
1006	{ Woodlark Isl'd, west end.	8 53 00 S.	152 24 00 E.			{ Capt. R. L. Hunter.....
	{ Woodlark Isl'd, east end.	9 09 00 S.	153 05 00 E.			{ Naut. Mag., 1840, p. 465.
	{ Group of islands seen by the brig Cyprus.	{ 8 56 00 S. 9 10 00 S.	{ 152 24 00 E. 153 02 00 E.			{ San Francisco Herald..... (Dutailis' Ann. Hydr., I, p. 160; Findlay, p. 620.)
1007	Barber's Group.....	8 54 00 S.	178 00 00 W.			Whaler report.....
1008	Penrhyn's Island.....	8 55 00 S.	157 07 00 W.	{ 8 55 00 S.	158 06 00 W.	{ New York Tribune, 1858.
1009	Do.....	8 55 00 S.	158 06 00 W.			{ Lieut. Ringgold, U. S. S. Porpoise.
1010	Do.....	9 10 00 S.	157 45 00 W.			{ Admiral Krusenstern.....
1011	Do.....	9 58 00 S.	158 14 00 W.			{ Capt. Cash.....
1012	Bennet Island.....	8 35 00 S.	159 55 00 W.			{ Capt. Bennet, 1832..... (Wilkes' Narr., IV, p. 277; Findlay's South Pacific Directory, p. 593.)
1013	Reef.....	8 55 00 S.	170 15 00 W.			Capt. Stuart, of the ship Corinthian
1014	Mitchell's Group.....	9 00 00 S.	179 48 00 E.			{ Whaler report.....
1015	Group of islands.....	9 27 00 S.	179 54 12 E.			{ Capt. Boissier, of the ship Nicolas Cesar. (Naut. Mag., 1866, p. 109; Merc. Mar. Mag., 1866, p. 93.)
1016	Group of islands.....	9 00 00 S.	168 00 00 W.			Honolulu Friend, March, 1854....

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1017	Sumbawa	0° 00' S.	0° 00' E. to 119° 00' E.	0° 00' S.	0° 00' E.	Ann. Hydr., XXVII, p. 200.....	A description of the southern shore of Sumbawa Island, by Frederico Villoch, is given in the Anuario de Direccion de Hidrografia, according to which this part of the island is represented very erroneously in recent Dutch charts, which generally are the most reliable for this region. Two islets near the southwest extremity of the island are not shown by them, as also an extensive bank near the southeast end. No bearings are given by Mr. Villoch. Navigators must be careful near this unexplored shore.
1018	Shoal..... 3-Fathom Bank.....	9° 05' 00" S. 9° 08' 00" S.	158° 00' 00" E. 158° 14' 00" E.	.....	.....	San Francisco Herald..... Naut. Mag., 1847, p. 266.....	{ The commander of H. B. M. ship Vulture, complaining of the general great inaccuracy of the charts of the Solomon Archipelago, mentions a reef reported to him by the whaling bark Brougham, said to be situated 15 miles south of Cape Pitt. It is now indicated on the British Admiralty chart of the Pacific Ocean, but is not laid down on Blunt's chart.
1019	Nicholas Group.....	9° 06' 00" S.	179° 48' 00" W.	.....	.....	Whaler report.....	Supposed to be identical with Mitchell's Group, and placed in western instead of eastern longitude by a typographical error. (See Nos. 1014 and 1015.)
1020	Clarence Island.....	9° 07' 00" S.	171° 40' 00" W.	} 9° 05' 00" S. North point.	171° 38' 00" W.	{ N. Y. Tribune, 1858..... Capt. May, U. S. Consul at Tahiti. (Wilkes' Narr., V, p. 10.)	{ The probable position of the north point is that assigned to it by the U. S. Exploring Expedition, in which it is placed on the British Admiralty chart. Blunt's chart shows, as Clarence Group, four islands, 20 miles further westward. Capt. Hudson, of the Exploring Expedition, speaks of one island only.
1021	Clarence Island.....	9° 25' 00" S.	171° 10' 00" W.				
1022	Bramble Cay.....	9° 07' 50" S.	143° 52' 10" E.	9° 07' 50" S.	143° 52' 10" E.	{ Naut. Mag., 1860, p. 565..... Findlay's S. Pac. Direct'y, p. 650. Horsburgh, II, p. 780.....	{ Captain Kennedy, of the ship Medway, complains that a mass of black rocks, running out on a reef from the southeast part of the Cay, one-third the length of it, and separated from it by shallow water, is not mentioned in the Directory. He says that these rocks form the most conspicuous part of the Cay. Horsburgh's Directory states these rocks to be to the southwest of the Cay.

1023	Reef.....	9 25 00 S.	138 57 00 W.			{ Naut. Mag., 1857, p. 664..... Findlay's S. Pac. Direct'y, p. 582.
1024	Adolphe Islands.....	9 27 00 S.	172 21 00 W.			French Bark Adolphe..... (San Francisco Herald.)
1025	Group	9 29 00 S.	170 52 00 W.			{ San Francisco Herald..... New York Tribune, 1858.....
1026	Low Islands.....	9 33 00 S.	170 38 00 W.			Capt. Guerdon, of the whaler Salamander.
1027	Group.....	9 38 00 S.	170 36 00 W.			Capt. Hudson, U. S. ship Peacock. (Wilkes' Narr., V, p. 10; Findlay's S. Pacific Directory, p. 595.)
1028	Bowditch	9 20 00 S.	171 04 00 W.			
1029	Reef.....(about)	9 30 00 S.	165 45 00 E.			Naut. Mag., 1847, p. 266.....
1030	Island.....	9 37 00 S.	152 37 00 E.			San Francisco Herald.....
1031	Ann Island.....	9 49 00 S.	151 15 00 W.			New York Tribune, 1858.....
1032	Glendenning Shoal...	9 54 00 S.	97 50 00 E.			Capt. Glendenning, of the bark Queen Mab. (Naut. Mag., 1861, p. 109.)
1033	Swain's Reef.....	9 55 00 S.	176 56 00 W.			{ Blunt's chart of the South Pacific. Wilkes' Narr., V, p. 376.....

{ A sunken reef is said to lie one or two miles from the island of Fetuhugu, (Hood,) but in what direction could not be clearly learned from the natives, their statements contradicting each other; probably it is the rock beneath the water, one mile to the north-northwest of the island, of which d'Urville speaks.

No islands are laid down in this position by any authority; the Adolphe probably saw and misplaced one of the Union Group.

{ There are some doubts whether all these positions refer to one and the same island—the Bowditch Island, of the U. S. Exploring Expedition—or whether a separate group is existing to the southeast of the Bowditch. According to Capt. Hudson, this island is 8 miles long north and south, (which would account for the difference in latitude,) by 4 miles width, and elevated parts, covered densely by cocoanut trees and shrubbery, are connected with each other by coral reefs awash. Capt. Guerdon reports 25 to 30 islets, covered with cocoanut trees. He saw Clarence Island the same day. Blunt's chart shows Bowditch Island only; the British Admiralty chart the Low Island of the New York Tribune, with a (?), in addition to Bowditch Island.

A reef, 72 miles north of the west extreme of Santa Cruz, extending about 10 miles north and south, and 15 miles east and west, observed to break heavily during a westerly gale, appears not to be laid down on late charts.

The British Admiralty chart has Sharp Island near this place, (north of the Luisiade Archipelago;) but Blunt's chart shows no island within 60 miles.

The existence of this island is not supported by any other authority. It is probably identical with Caroline, (No. 1035,) or Stavers, (No. 1042.)

Captain Glendenning, finding the water discolored, milky white, hove the lead, and got a cast of 7 fathoms; but 7 or 8 minutes afterwards he did not reach bottom with the hand lead. Not satisfied, he hove to, and sounded with the deep-sea lead in 55 fathoms, hard ground. British Admiralty charts show the danger in 98° 45' E.

{ Captain Hudson, of the U. S. Exploring Expedition, searched this position in the Peacock without finding any indication of a danger.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1034	Lyndoch Shoal.....	9 53 00 S.	130 40 00 E.	9 53 00 S.	130 40 00 E.	Capt. Stead, of the ship Lord Lyndoch. (Naut. Mag., 1839, p. 843.)	Captain Stead anchored on the northeast extreme of this reef, in 17 fathoms water, and from there he could just see the sand hills that are (as he says) laid down on the chart of the Barrier Reef, by Norie. British Admiralty charts show this shoal as "a report."
1035	Caroline Island.....	9 54 00 S.	150 07 00 W.	9 54 00 S.	150 07 00 W.	N. Y. Tribune, 1853.	In all probability identical. The island to which these reports refer is very low, but probably not so extensive as Capt. Broughton reports, viz: 5 leagues long and 5 miles wide. Blunt's chart shows Thornton Island separately, in 151° W.
1036	Caroline Island.....	9 57 00 S.	150 25 00 W.	9 57 00 S.	150 25 00 W.	Capt. Broughton, 1795.	
1037	Thornton Island.....	10 04 00 S.	150 16 00 W.	10 04 00 S.	150 16 00 W.	Capt. Thornton, of the ship Supply. (Findlay's S. Pac. Direct'y, p. 592.)	
1038	East Jacobus Bank...	9 54 30 S.	143 10 00 E.	9 54 30 S.	143 10 00 E.	Ann. Hydr., XXVII, p. 408.	A bank was discovered (1862) 2 miles S. W. of Arden Island, in Torres Straits, and named East Jacobus Bank, and a bank N. 32° E. of Dungeness Reef, named West Jacobus.
1039	Discoloration of water	8 58 30 S.	143 05 00 E.	8 58 30 S.	143 05 00 E.	Ann. Hydr., XXVII, p. 408.	A discoloration of the water was observed by the ships Glen Clune and Hermon, 2 miles N. E. of Dove Island. This region not having been well examined, vessels should traverse it with caution.
1040	Francis Island.....	9 58 00 S.	161 40 00 W.	9 58 00 S.	161 40 00 W.	New York Tribune, 1858. (Horsburgh, II, p. 805; Findlay's South Pacific Directory, p. 485.)	This island has been adopted (evidently from the Tribune's report) by Blunt's and the British Admiralty charts; by the latter with a (?), and with a note that the sloop-of-war Alert did not see it. It may be identical with Alexander or Rierson Island, discovered in 1820 by Capt. Bellinghausen, and seen again by Capt. Patrickson, 1822, in 10° 02' S., 161° 09' W.
1041	Groningen Island....	10 00 00 S.	156 44 00 W.	10 00 00 S.	156 44 00 W.	New York Tribune..... (Findlay's S. Pac. Direct'y, p. 485.)	These islands are also shown as "questionable" by the British Admiralty chart, but not by Blunt's. They are said to be discoveries of a Capt. Roggewein, in 1722. They were searched for by the U. S. Exploring Expedition, but could not be found.
1042	Tienhoven Island....	10 00 00 S.	156 59 00 W.	10 00 00 S.	156 59 00 W.		
1043	Danger Island.....	10 00 00 S.	165 56 00 W.	10 00 00 S.	165 56 00 W.	New York Tribune..... (Findlay's S. Pac. Direct'y, p. 486.)	The latitude 10° in the Tribune's article is probably a misprint for 10° 54'. Three islands were discovered by Commodore Byron in 10° 15' S., and placed in longitude 169° 28' W., which Adm'l Krusenstern corrected to 165° 58' W. These islands were stated to be surrounded by rocks and breakers, and a dangerous reef to lie 9 leagues E. S. E. from

them. Capt. Bellinghausen discovered three islands, similarly described, but without the reef, in 10° 54' S., 165° 54' W. Blunt places them in 11° S., 164° 55' W., and a reef 25 miles east of them. The British Admiralty chart has them in Bellinghausen's position, and an additional island, with a (?), in 10° 45' S., 166° 20' W.

{ Findlay's Directory appears to be particularly unfortunate in regard to the position of this island. Capt. Houston, of H. B. M. Navy, complains of a discrepancy of 60 miles in longitude between the text of the Directory (1st edition) and the table of positions. The discrepancy has been made worse in the 2d edition, 1863. On page 484 of it the longitude is stated to be given by Lieut. Wilkes as 153° 23' W., and the table of positions (p. XLVIII) gives 155° 23', instead of 152° 23', as Wilkes (and probably also Capt. Bellinghausen) has it.

The Ackers, drawing 16 feet, touched on a shoal, which appeared to extend a quarter of a mile northeast and southwest, Poll Island bearing from it N. E. $\frac{1}{4}$ N., and Saddle Island N. W. $\frac{1}{4}$ W. It is shown by the British Admiralty chart of the Coral Sea (1864) as "a report."

When passing from Bet Island and Ninepin Rock to Ince Point, breakers were passed within 3 cables' lengths; they were about half a mile in extent northeast and southwest, and through the centre Mount Ernest Island bore N. by E. $\frac{1}{4}$ E., 7 miles distant, and the largest of the Double Islands S. by W. $\frac{1}{4}$ W., 5 $\frac{1}{2}$ miles. It is thought that they would not show in light winds, as there appeared to be 3 or 4 feet of water on them, and as no discoloration was seen, but only the long, narrow line of breakers indicating the position. The chart above named lays down this danger as "doubtful."

Is the Thomasset Rock, discovered by the ship Ariane, in 1844, 15 $\frac{1}{2}$ miles E. by N. from the northwest point of Magdalen Island, the southeasternmost of the Marquesas, and is 10 feet *below* the water. The British Admiralty chart of the Pacific Ocean shows it, but Blunt's does not.

Not shown on charts.

Error of western longitude in place of eastern longitude. (See next number.)

{ Capt. Bennet's position is thought to be quite reliable. The island is said to be so high as to be seen 20 miles distant.

1044	Stavers, Vostock, or Ann Island.	10 05 00 S. 10 05 00 S.	152 16 00 W. 152 22 30 W.	..... .....	New York Tribune, 1858. U. S. Exploring Expedition. (Naut. Mag., 1855, p. 604; Wilkes' Narr., IV, p. 277; Findlay's South Pacific Direct'y, p. 484.)
1045	Shoal in Torres Str'ts.	10 18 30 S.	142 48 30 E.	.....	Capt. Jones, of the bark Ackers.. (Merc. Mar. Mag., 1861, p. 2.)
1046	Campbell Shoal, in Torres Straits,	10 21 00 S.	142 28 00 E.	.....	Capt. Crowdace, of the ship King Lear, and Campbell, of the Storm Cloud. (Naut. Mag., 1860, p. 615; 1861, p. 108; and 1864, p. 25.)
1047	Rock.....	10 21 00 S.	138 29 00 W.	.....	Findlay's S. Pac. Direct'y, p. 578..
1048	Shoal.....	10 23 00 S.	108 53 00 E.	.....	San Francisco Herald.....
1049	Independence Island.	10 25 00 S.	179 00 00 W.	.....	China Mail.....
1050	Independence Island.	10 25 00 S.	179 00 00 E.	.....	China Mail.....
1051	Sophia Island.....	10 41 00 S.	179 15 00 E.	..... .....	Capt. Bennet, 1830 .. (Findlay's S. Pac. Direct'y, p. 597.)

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1052	Coutance Reef.....	0 ' " 10 30 00 S.	0 ' " 147 30 00 E.	0 ' "	0 ' "	Naut. Mag., 1860, p. 564..... (Findlay's S. Pac. Direc'y, p. 648.)	This reef, seen by Mr. Coutance, in the Adele, (1804,) and placed as reported on charts, but unsuccessfully searched for by two British naval vessels, is said to have been seen again, by a Capt. Kennedy, 30 miles W. S. W. of Point Hood.
1053	Quiros Island.....	10 32 00 S.	170 12 00 W.	.....	.....	New York Tribune, 1858..... (Wilkes' Narr., V, p. 12.)	The Quiros or Gente Hermosa of Quiros was unsuccessfully searched for by Lieut. Hudson, of the U. S. Exploring Expedition; but an island was found in 11° 05' S., 170° 55' W., of coral formation, without a lagoon, round, 4 miles in circumference, well wooded, and 25 feet high, which may be the island discovered by Quiros. Lieut. Hudson called it Swain's Island. (See No. 1070.)
1054	Flint's Island.....	10 32 00 S.	162 05 00 W.	.....	.....	New York Tribune, 1858.....	This island is not laid down on Blunt's chart, but adopted by the British Admiralty chart, with a (?).
1055	Aurora and Proud-foot Rocks.	10 33 00 S.	140 57 00 E. to 141 23 00 E.	.....	.....	Naut. Mag., 1859, p. 597.....	The writer advises vessels, when approaching Torres Straits, to keep out on the parallel of the entrance of Endeavour Straits, so as to avoid the Proudfoot and Aurora Rocks, said to lie about the reported position. In British Admiralty charts these dangers are noted as "questionable."
1056	Pescado Island.....	10 38 00 S.	159 20 00 W.	}	}	{ New York Tribune, 1858..... Auiros and Torres (Findlay, 1st ed., II, p. 895.)	{ Blunt's chart exhibits only Peregrino; the British Admiralty, besides the same, also Pescado Island, with a (?). Peregrino is also doubtful in position, and even in existence. Torres and Torquemada describe it 8 or 10 Spanish leagues in length north and south, but no island of such dimensions has been seen thereabouts since.
1057	Peregrino Island.....	10 20 00 S.	159 10 00 W.				
1058	Solitary Island.....	10 40 00 S.	176 50 00 W.	.....	.....	Old reports..... (Naut. Mag., 1856, p. 262.)	Capt. Fox, of the ship Mary Catharine, passed within 5 miles of this position at midday, with good lookouts, but could not see any indication of an island. It has been erased from late charts.
1059	Humphrey Island.....	10 40 00 S.	160 52 00 W.	}	}	{ New York Tribune, 1858..... (Horsburgh, II, p. 805; Findlay's S. Pac. Directory, p. 485.)	{ Evidently positions for one and the same island, which is low, covered with cocoanut trees, and uninhabited, and was seen by Captains Patricson and Freycinet. The British Admiralty chart adds to Horsburgh's position that of the New York Tribune, with a (?).
1060	Do.....	10 30 00 S.	161 02 00 W.				

1061	Orontes Shoal, (Port Essington.)	10 43 30	132 07 00 E.	.....	Naut. Mag., 1847, p. 6.....	Orontes Shoal, a coral bank, with 2½ fathoms water upon it, is by this authority reported to be in latitude 10° 43' 30" (mean of 2 sets of observations by two persons, differing only 30 seconds arc,) whilst Raper and the charts of the British Admiralty place it in 11° 04' S. This discrepancy requires investigation.
1062	Sarah Scott Island.....	10 45 00 S.	163 12 00 W.	.....	China Mail.....	No island is shown there on charts.
1063	Gibson Shoal, Endeavour Straits.	10 43 30 S.	142 18 30 E.	.....	Naut. Mag., 1853, p. 498; 1854, p. 692; Ann. Hydr., XI, p. 181; Horsburgh, II, p. 784.	Capt. Gibson reports that his ship (the Midlothian) struck twice on a sunken rock 1 mile distant from the southeast end of Entrance Island, and the ship <i>Jemima Pereira</i> is said to have seen a rock, which may be easily recognized by the discoloration and violent commotions of the sea, 3 miles from the extreme south point of the same island. Probably these are identical, and English authorities place them so "as doubtful" in position 1½ mile to the northwest of the Heroine Rock. Another Rock is reported by the <i>Jemima Pereira</i> 4 miles from the extreme east point of Port Lihon.
1064	Rock near Torres Straits.	10 51 15 S.	142 39 00 E.	.....	Ann. Hydr., XI, p. 181.....	Captain Czozet, of the ship <i>Mercedes</i> , reports that, being N. 17° W., 3 miles distant from Tortue Island, he saw an unknown rock, awash at low water, 7 feet in circumference.
1065	Ganges.....	10 59 00 S.	160 55 00 W.	}.....	New York Tribune, 1858.....	{ All these islands are said to have been discovered by Rogge- wein (1722) and other old navigators, but their existence is not supported by later authorities. Ganges, Siderous, and Ryerson are probably identical, and perhaps all erroneous positions for Humphrey Island, placed by Freycinet and Patrickson in 10° 30' S., 161° 02' W., or 160° 55' W., (see 1060.) Roggewein appears to be distinct from Groningen and Tienhoven, (Nos. 1041 and 1042,) as they are reported by one and the same authority. Blunt's chart of the South Pacific shows only Roggewein and Siderous Islands; that of the British Admiralty has all of them, with queries.
1066	Roggewein.....	11 00 00 S.	156 07 00 W.			
1067	Siderous.....	11 05 00 S.	161 50 00 W.			
1068	Ryerson.....	11 11 00 S.	160 53 00 W.			
1069	Island.....	11 05 00 S.	171 45 00 W.	} 11 05 00 S.	Capt. Gray, U. S. Consul at Tahiti. (Wilkes' Narr., V, p. 18.)	{ Doubtless the Swain's Island of Lieut. Hudson, U. S. Exploring Expedition, called generally on charts Hermoso or Gente Hermoso.
1070	Swain's Island.....	11 10 00 S.	170 55 00 W.			
1071	Soundings in.....	11 25 00 S.	171 35 00 W.	.....	Capt. Pritchard, U. S. Consul at Apia.	Are not laid down on charts.
1072	Flint's Island.....	11 26 00 S.	151 48 00 W.	} 11 26 00 S.	{ New York Tribune, 1858..... U. S. Exploring Expedition..... H. B. M. ship <i>Talbot</i> (Wilkes' Narr., IV, p. 277; Naut. Mag., 1848, p. 419.)	{ Low, 1½ mile in length from north-northwest to south-southeast, thickly wooded, with high breakers, extending some distance off. Blunt's chart places this island in 11° 45' S., 151° 50' W.
	Do.....	11 25 43 S.	151 48 00 W.			
	Do.....	11 28 00 S.	151 48 00 W.			

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.	
		Latitude.	Longitude.	Latitude.	Longitude.			
1073	Nassau Island	0 1 "	11 30 00 S.	0 1 "	165 30 00 W.	{ Capt. Sampson, 1835. Capt. Cazales, 1855. Horsburgh, II, p. 802. New York Tribune, 1858. Whaleship Ranger..... (Naut. Mag., 1853, p. 420; Ann. Hydr., XI, p. 534.)	{ Capt. Sampson describes his island as low, with plenty of wood and water, and not inhabited. Capt. Cazales states his island to be 3 or 4 miles long, with fine verdure, and encircled by a reef. Horsburgh evidently adopts Sampson's as authority. The Ranger's island may perhaps be a separate one. The Tribune's position is not reliable. On Blunt's chart Bernardo or Danger Islands (three in number) appear to have been taken for Nassau Island, which, as well as the Ranger Island, are not shown. The British Admiralty chart adopts Horsburgh's position and that of the New York Tribune, both with a (?).	
1074	Island		11 30 00 S.					165 34 00 W.
1075	Nassau Island		11 30 00 S.					166 00 00 W.
1076	Do		11 52 00 S.					165 00 00 W.
1077	Island		11 35 00 S.					166 45 00 W.
1078	Shoal	11 38 00 S.	154 30 00 E.			San Francisco Herald.....	Not laid down on charts.	
1079	Luisa Bank.....	11 45 00 S.	175 52 00 E.			Capt. Hathaway, of bark Luisa... (Naut. Mag., 1860, p. 444.)	The Luisa sounded in from 13 to 17 fathoms over coral bottom in the reported position. The Bank is shown by Blunt's, but not by the British Admiralty chart of the Pacific Ocean.	
1080	Coral Bank.....	11 47 10 S.	143 41 30 E.			H. B. M. ship Salamander..... (Naut. Mag., 1865, p. 440; Ann. Hydr., XXVIII, p. 165.)	A patch in Blackwood's channel about 1 mile E. S. E. of the western part of the Middle Bank, one cable long east and west, half a cable broad, with 7 feet water over it, and 15 to 17 fathoms in the channel between it and the reef. From the shoalest part, the eastern sand-bank on the middle banks bears W. $\frac{1}{2}$ N., 2 $\frac{1}{2}$ miles distant, and the southern extremity of Sir Chas. Hardy's Islands S. W. Vessels entering the Barrier Reef by Raine Island, on passing this island, should bring its beacon to bear N. E. $\frac{1}{2}$ E., and steer S. W. $\frac{1}{2}$ W., allowing for tide and northerly set, for Sir Chas. Hardy's Islands. Losing sight of the beacon, the vessel will be clear of the shoal patches westward of the 100-fathom line of soundings, and on the bank. She will then look out for the Sir Chas. Hardy's Islands, and when plainly seen, steer for their southern extremity, S. W. $\frac{1}{2}$ W., and when the easternmost sand-bank on the Middle banks bears N. W. by W., and the West Ashmore bank (if seen) S. S. W. $\frac{1}{2}$ W., she will be well to the southwest of the Salamandar Patch, and a course may then be shaped for either the North or the Pollard channel. Bearings magnetic. Var. (1865) 5° E.	

The Tynemouth passed over a coral patch of apparently about 100 yards diameter, with the following true bearings: Sands on Middle Bank E. $\frac{1}{2}$ N.; east end of Cockburn Spit S. W. by W.; Cockburn Islands W. S. W.; and Sir Chas. Hardy's North Island S. S. W. $\frac{1}{2}$ W. A clear passage appeared at the spit end of Cockburn Reef, whilst over the edge of the shoal 4 fathoms were had in the port and 8 fathoms in the starboard chains. Coral bunches were plainly visible under the ship's bottom, and in the centre of the patch they appeared to be just covered. Nothing was seen from the topsail yard or jibboom end, the sun being before the beam. In 1861 Capt. Denham, of the British surveying steamer Herald, reports that he could see nothing of this danger under the reported bearings; and it appears that, on account of this report, the shoal is not shown on the British Admiralty chart of the Coral Sea, (1854.) In 1864 Capt. Styles, of the ship Margarette Mitchell, reported a rock or reef three-quarters of a mile from Cockburn Reef, which most probably is the Tynemouth Patch. Navigators should keep a bright lookout there.

Blunt's chart of the South Pacific Ocean shows Baumann's Island (a group) in $12^{\circ} 00' S.$, $155^{\circ} 20' W.$ The British Admiralty adopts the Tribune's position, with a (?).

A reported cast of 17 fathoms was not found by Capt. Denham, of H. B. M. surveying vessel Herald. It is not laid down on charts.

A corroboration of the Hibernia Reef, seen 1810. Capt. Kennedy reports this reef as quite 6 miles long, trending east-southeast and west-northwest, very narrow, no part above the water, but apparently very close to the surface, with heavy breakers at the east and west ends.

The ship is said to have been lost there. No danger is shown on charts.

The Indispensable Reef is generally described as extending from $11^{\circ} 44' S.$, $159^{\circ} 58' E.$, to $12^{\circ} 46' S.$, $160^{\circ} 40' E.$; but some reports place it in latitude $12^{\circ} 12' S.$, extending to $161^{\circ} 30' E.$ Blunt has it so on his chart. Capt. Denham, of H. B. M. vessel Herald, has satisfied himself that this extension does not exist.

Captain Landgreen sounded at the first position in 12 fathoms, *white sand and coral*, and running 2 miles W. S. W., changed soundings rapidly to 35 fathoms; this bank is 4 miles long east and west. On the same day

1081	Tynemouth Bank, Torres Straits.	11 50 00 S.	143 32 30 E.	{ Capt. Wake, of the ship Tynemouth. { Capt. Stiles, of ship Margarette Mitchell. { Merc. Mar. Mag., 1858, p. 368; Naut. Mag., 1859, p. 441, 1861, p. 221, and 1864, p. 26; Horsburgh, II, p. 7761.)
1082	Baumann's Island.....	11 48 00 S.	154 10 00 W.	New York Tribune, 1858.....
1083	Soundings.....	11 49 00 S.	145 49 00 E.	Brig Dragon..... (Naut. Mag., 1861, p. 221.)
1084	Reef.....	11 56 00 S.	123 27 00 E.	Capt. Kennedy, of ship Theresa... (Naut. Mag., 1863, p. 397.)
1085	Coral Patch.....	12 07 00 S.	143 32 00 E.	Ship Maid of Athens.....
1086	Indispensable Reef...	12 12 00 S.	161 30 00 E.	{ Naut. Mag., 1855, p. 359..... { Findlay's S. Pac. Direct'y, p. 620.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1087	Banks .....(in)	12 14 40 S.	123 24 30 E.	0 1 "	0 1 "	Capt. Landgreen..... (Ann. Hydr., XVI, p. 344.)	the same officer saw rocks under the ship; sounded in 12 fathoms, and, steering W. S. W., decreased the depth to 4 and 5 fathoms, (in the 2d position.) According to appearances, the water was much shoaler in some places. Steering S. the depth was increased to 7½, 9, and 32 fathoms. The sea no doubt breaks on this second shoal in northwest monsoons. Examination will have to be made to establish whether these dangers have any, and if so, what, connection with the Ashmore or Hibernia Shoal, (No. 1084.)
1088	 (and)	12 19 28 S.	123 10 30 E.				
1089	Reef	12 50 00 S.	175 20 00 W.	12 54 00 S.	175 31 00 W.	{ Capt. Pritchard, U. S. Consul at Apia. Capt. Home, British Navy..... Capt. Ower, of ship Lalla Rockh. (Naut. Mag., 1845, p. 323, and 1848, p. 270; 1850, p. 222; Findlay's S. Pac. Direct'y, p. 499.)	{ These reports appear to refer to one and the same danger. Capt. Home, when searching for a shoal between Navigator's and Wallis' Islands, (in the reported position of which he did not reach bottom with 100 fathoms line,) found the North Star Reef of great extent, with 13 fathoms over it. A typographical error in the Nautical Magazine of 1845 places this shoal in east instead of west longitude, and it has, unfortunately, gotten also into Findlay's South Pacific Directory. Capt. Ower found 10 fathoms, and was two hours passing over the shoal, running W. ½ S., at the rate of 3 knots. Charts show this shoal correctly.
1090	North Star Bank.....	12 53 08 S.	175 31 00 W.				
1091	Lalla Rockh Bank...	13 02 00 S.	175 38 00 W.				
1092	Island.....	13 00 00 S.	160 00 00 W.	.....	.....	China Mail	Shown on the British Admiralty, but not on Blunt's chart.
1093	Islands	13 06 00 S.	168 34 00 W.	.....	.....	Whaler report.....	No other authority for this island. There is an island shown as "questionable" on charts, in 13° 09' N., 168° 24' W., (No. 359,) which is probably identical with this one.
1094	Suwaroff's Islands...	13 10 00 S.	163 10 00 W.	.....	.....	Capt. Pritchard..... Lieut. Lazareff, Russian Navy..... Horsburgh, II, p. 805.....	{ The Suwaroff Islands, (five or more in number,) small and uninhabited, discovered in 1814 by Lieut. Lazareff, of the Russian American Company's ship Suwaroff, do not appear to be satisfactorily established. Capt. Stuart complains that they are laid down on charts 55 miles too far west. Capt. Worth, of the bark Gem, says that he was wrecked on a reef making out from the Suwaroff Islands, when his chronometer placed him 85 miles to the eastward of them.
1095	Do.....	13 13 15 S.	163 31 00 W.				
1096	Do.....	13 20 00 S.	163 23 00 W. to 31 00 W.				
1097	Do.....	13 15 00 S.	162 35 00 W.	.....	.....	Capt. Stuart, of ship Corinthian... (Findlay's S. P. D'y, p. 485; Honolulu Friend, Nov. 1849; Nov. 1853.)	

1098	Reef.....	13 15 00 S.	174 25 00 W.	.....	Capt. Pritchard, U. S. Consul at Apia.	Is not laid down on charts.
1099	Dartagnan Reef.....	13 16 00 S.	120 30 00 E.	.....	{ Naut. Mag., 1860, p. 166..... { Merc. Mar. Mag., 1866, p. 93.....	{ Captain Bresson, of the ship Dartagnan, passed over a bank on which the lead gave 11 fathoms, sand. Shoaler parts he supposed to exist on it. Charts do not show it.
1100	Norman Rock.....	13 17 00 S.	143 35 30 E.	.....	{ Capt. Norman, of H. B. M. ship Victoria.	{ The Norman Rock, discovered by H. B. M. ship Victoria, is 30 yards broad, composed of coral, and has two feet of water over it at low tide; it lies one-third of a mile west of Island No. VIII. The Chilcott Rocks lie to the eastward of the same island, bearing from each other north and south, 150 yards apart; both flat-topped, 20 to 25 yards in extent, steep to all around, with 7 fathoms of water between them; a small clump of coral on the southern rock projects 1½ foot above the surface of the water. The Chilcott Rocks appear to be placed correctly on the British Admiralty chart of the Coral Sea, (1864,) but the Norman Rock is not shown at all.
1101	Chilcott Rocks.....	13 17 00 S.	143 37 00 E.	.....	{ Capt. Norman, of H. B. M. ship Victoria. { (Merc. Mar. Mag., 1862, p. 289.)	
1102	Shoal.....(about)	13 30 00 S.	173 30 00 W.	.....	Naut. Mag., 1853, p. 426.....	Reported by Capt. Worth, of H. B. M. ship Calypso, as existing 40 miles west of the west point of Savai, the westernmost of the Navigators. It is not shown on charts; perhaps it is identical with No. 1098.
1103	Rocks.....	13 45 00 S.	82 44 00 W.	.....	Capt. Pousland, of ship Manlius... (Merc. Mar. Mag., 1854, p. 77.)	Captain Pousland reports a reef of rocks just awash, with constant breakers, extending north by east 100 to 300 feet. It is laid down on the British Admiralty chart of the Pacific Ocean, but is not shown on Blunt's chart.
1104	Shoals	13 45 00 S.	171 00 00 W. to 172 00 00 W.	.....	Naut. Mag., 1853, p. 426.....	A shoal off Moata and a shoal off Utuman, (both small harbors on the north side of Upolu, one of the Navigators,) each 6 to 7 miles off shore, the latter shoal extensive, were reported by natives to Capt. Worth, of H. B. M. ship Calypso, but their positions have not been established.
1105	Seringapatam Reef...	13 46 00 S.	121 54 00 E.	.....	Capt. Courtenay..... (Naut. Mag., 1842.)	Is generally laid down on charts.
1106	Osprey Reef.....	13 50 00 S.	146 57 00 E.	} 13 51 10 S. 146 36 00 E.	{ Capt. Hunt, of schooner Osprey... { Capt. Keene, of brig Margarette... (Naut. Mag., 1845, p. 101.)	{ It is believed that these dangers are identical with a triangular-shaped reef, shown on charts either as Margaret or Osprey Reef. This danger, according to Capt. Denham, is 5 miles long on each of its sides, and its east angle is established in 13° 51' 10" S., 146° 36' E. It is just visible at slack water below the surface, with the exception of three dark coral blocks, which then are about 2 feet above water. With regular S. E. winds the water breaks furiously on the southeast side of the reef, but scarcely ever on the northeast side.
1107	Osprey Reef.....	13 57 00 S.	146 34 00 E.			
1108	Bank	14 10 00 S.	106 52 00 E. to 105 52 00 E.	.....	Capt. Whittingham, of the ship Helen Stewart. (Naut. Mag., 1845, p. 88.)	The Helen Stewart ran over a patch of milk-white water, and had there less wind and smoother sea. Soundings should be tried for there.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1109	Channel between Flinder's Group and Reef <i>d</i> .	0° 1' " 14 10 00 S.	0° 1' " 144 08 00 E.	0° 1' "	0° 1' "	Ann. Hydr., XXVII, p. 406.....	Commander Robinson, of H. B. M. ship Pioneer, reports that in the channel between the Flinder's Group and Reef <i>d</i> , he found less water than is shown there on the latest British Admiralty charts. Between Flinder's Group and the Pelican Island Commander Robinson experienced a strong N. E. set during the latter half of a spring flood tide; at another time he felt an opposite set. The streams, therefore, seem to take the direction of the channels between the Reefs <i>c g h</i> , or across the line of route; and great care is therefore necessary to be observed in navigating these waters.
1110	Enfants Perdue Isl'd. (or)	14 16 00 S. 14 20 00 S.	177 23 00 W. 176 40 00 W.	.....	.....	Capt. Pritchard, U. S. Consul at Apia.	The "Enfants Perdue" (a double island) was discovered by Bougainville in 1768, and placed in 14° 20' S., 176° 40' W., where the British Admiralty chart shows it as "questionable." It is not on Blunt's chart. Probably (although Admiral Krusenstern does not think so) they are identical with the Horn Islands of Lemaire and Schouten, (Foutouna and Alofa,) which Lieut. Wilkes saw, and which Raper puts in 14° 18' S., 178° 18' W.
1111	Island.....	14 23 00 S.	145 55 00 E.	.....	.....	San Francisco Herald.....	The existence of this island is not supported by other authorities, and it is not found on charts.
1112	A small high island..	14 23 00 S.	168 10 00 E.	.....	.....	Capt. Hunter.....	Is the Star Island, ("Pic de l'Etoile,") the northeasternmost of the New Hebrides, named so by Bougainville, 1768, and generally placed in 14° 29' S., 168° 04' E.
1113	Megaera Rock.....	14 32 30 S.	145 06 30 E.	.....	.....	{ Merc. Mar. Mag., 1858, p. 287... Ann. Hydr., XV, p. 10, and XXVII, p. 406.	{ A pinnacle rock, 4½ miles east of the southernmost Howick Island, inside the Barrier Reef, and 6 feet below the water. Appears not to be shown on the British Admiralty chart of the Coral Sea, 1864. H. B. M. ship Hecate, in 1863, could not find this rock.
1114	Shoal.....(about)	14 46 00 S.	171 00 00 W.	.....	.....	Naut. Mag., 1853, p. 426.....	A shoal was reported by natives to Capt. Worth, of H. B. M. steamer Calypso, to lie 16 miles south of the south point of Tutuila, one of the Navigator Group. It is not shown on charts.
1115	Shoal and Group.....	14 48 00 S.	160 30 00 W.	.....	.....	Whaler report.....	Not shown on charts.

Lieutenant Chimmo, of H. B. M. surveying steamer Torch, passed close to the position of a reported danger in this locality, but could not find any indication of it. The British Admiralty chart of the Coral Sea (1864) gives it as "doubtful."

H. B. M. ship Talbot passed very near this spot without seeing any land. Blunt's chart of the Pacific shows the island; the British Admiralty's does not.

{ No danger is laid down there by other authorities; but
Hammond Reef (discovered by H. B. M. ship Salamander) is shown on the British Admiralty chart in 15° 32' S., 175° 20' E. Blunt's chart shows a reef in 15° 22' S., 175° 30' E. All these are probably the same.

This group is not shown on charts, nor reported on any other authority.

These islands, placed from old reports on some charts, were unsuccessfully searched for by the U. S. ship Porpoise, of the U. S. Exploring Expedition. They have since been generally erased from charts.

{ The first shoal reported by Capt. Van Stryen, of the Dutch bark Nyverheid, and again, with a slight difference in longitude, by Capt. Marshaw, of the bark Ellen, may or may not be identical with the Diana Bank, which is said to be very uncertain in longitude, as, since the time of Bougainville, it has never been examined. Capt. Denham, of H. B. M. ship Herald, in 1860, searched for 30 miles east and west, and 10 miles north and south of Bougainville's position, without being able to find any trace of a shoal; his lead did not reach the bottom anywhere there with 230 fathoms line out. Both positions are generally given on charts.

{ Are uncertain as to existence and position. Capt. Denham, H. B. M. Navy, searched for these reported dangers during 6 days over 300 square miles around the reported position, between the parallels of 16° 20' and 14° 20' S., and the meridians of 147° 10' and 149° 50' E., without finding bottom with 230 fathoms line out. He expresses the opinion that Bougainville's reckoning might have been out one degree in latitude, and that he saw the Holmes Reef discovered in 1854. (See No. 1137.)

1116	Reef.....	14 49 30 S.	145 22 40 E.	.....	Some charts..... (Naut. Mag., 1857, p. 236.)
1117	Peregrino Island.....	14 50 00 S.	151 40 00 W.	.....	Old reports..... (Naut. Mag., 1848, p. 419.)
1118	Shoal.....	14 58 00 S.	174 49 00 E.	{	{ Sidney Morning Herald..... Capt. Hammond, H. B. M. Navy..
1119	Shoal.....	15 32 00 S.	175 20 00 E.		
1120	Gardiner's Group.....	15 00 00 S.	174 18 00 E.	.....	Whaler report.....
1121	Camboy's and Merrill's Islands.....	15 13 00 S.	141 00 00 W.	.....	Wilkes' Narr., IV, p. 265.....
1122	Shoal.....	15 30 00 S.	149 40 00 E.	.....	Capts. Stryen and Marshaw..... Bougainville, 1768..... (Findlay's S. Pac. Direct'y, p. 654; Ann. Hydr., XXVII, p. 437.)
1123	Diana Bank.....	15 41 00 S.	150 30 00 E.		
1124	Shoals.....(in)	15 17 00 S.	147 57 00 E.	.....	Both seen by Bougainville, in 1768. Ann. Hydr., XXVII, p. 437.....
1125	and	15 35 00 S.	148 06 00 E.		

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1126	Island	0 1 " 15 35 00 S.	0 1 " 175 23 00 W.	0 1 "	0 1 "	China Mail..... (Findlay, II, p. 498.)	Is doubtless the Brinsmade Island, reported (1840) by Capt. Wood, of the ship Richmond, as large, well wooded, and thickly populated, situated in 15° 37' S., 175° 25' W. It may also be identical with Niuafo, of Capt. Edward, similarly described, and placed by Raper in 15° 53' S., 175° 57' W. This region appears not to have been well explored. Blunt's chart shows for these islands only Niou-Assohu in 15° 30' S., 175° 30' W.
1127	Recreation Island.....	15 35 00 S.	150 00 00 W.	.....	.....	Old reports..... (Wilkes' Narr., II, p. 64.)	The position of this reported island was passed over by vessels of the U. S. Exploring Expedition, but nothing was seen. Blunt's chart shows it.
1128	Reef	15 40 00 S.	175 52 00 E.	.....	.....	Ship Balmoral.....	{ Capt. Fox, of the ship Mary Catharina, mentions the first reef as a new discovery, and the other was reported to the French consul at Sydney as having only 8 feet over it. Neither is shown on charts; they may be identical even with the reef No. 1119.
1129	Do	15 48 00 S.	175 30 00 E.	.....	.....	Capt. Davenport, of ship Alfred... (Naut. Mag., 1856, p. 262; Ann. Hydr., VII, p. 187.)	
1130	Reef and Sand-bank.	15 44 00 S.	176 25 00 E.	{ 15 43 00 S.	176 27 00 E.	{ San Francisco Herald.....	{ These reported dangers are doubtless identical, and are laid down on charts as Carter's Reef.
1131	Shoal	15 44 00 S.	176 27 00 E.			{ Naut. Mag., 1848, p. 574.....	
1132	Carter's Reef.....	15 42 00 S.	176 28 00 E.			{ Findlay's S. P. D., p. 559.....	
1133	Boscarnes Island.....	15 55 00 S.	173 35 00 W.	{ .....	.....	Capt. Pritchard, Consul at Apia.... (Findlay's S. Pac. Direct'y, p. 498.)	{ Lieut. Corbin, of the U. S. ship St. Mary's, reports that he passed within 20 miles of the position given on Norrie's chart of the Pacific of these two islands without seeing anything of them, but that Capt. Pritchard, at Apia, (a very intelligent navigator,) asserts their existence, as he had passed them frequently, and that he places them in the position given by him. Both islands were discovered by Lemaire and Schouten, 1616. Boscawen or Cocos Island or Nina-tabu-tabu was found to be 2,000 feet high, and placed in 15° 54' S., 173° 48' W. Verraders (Traitor) or Keppel Island, in 15° 57' S., 173° 58' W., much lower and of greater length; both well populated. Charts generally show these islands near these positions. The report next below would place Boscawen Island more to the eastward in accordance with Capt. Pritchard's position.
1134	Keppel Island	15 45 00 S.	173 35 00 W.				

H. B. M. ship Curacoa observed a reef, over which the sea was breaking heavily, in the first position opposite. It did not appear of any great extent, and soundings were not obtained. At noon of the same day the vessel was in latitude 15° 17' S., longitude 173° 16' W. At 4 p. m., having made S. 17 miles, Boscawen Island bore S. W. by S. and the Reef W. by N., and after proceeding S. $\frac{1}{2}$ E. 5 miles, soundings were obtained in 10 fathoms, the centre of Boscawen Island bearing S. S. W. $\frac{1}{4}$ W., (query? S. W. $\frac{1}{2}$ W.) From these courses the position of the 10 fathoms is determined. Both dangers are shown on the latest British Admiralty chart of the Pacific Ocean, corrected up to Dec., 1865. A remarkable error has crept into the report given of them in the March number of the Nautical Magazine for 1866: the longitude of the reef is there given 178° 09' W.; and of the noon position 177° 56' W., or both times differing 4° 40' from that given by the Mercantile Marine Magazine. It appears that the report of the Naut. Mag. has been copied from a publication of the French hydrographic office, and that the editor, instead of subtracting the meridional difference between Greenwich and Paris, added it. Instead of 10 fathoms the soundings are given as 18 fathoms.

Sand-bank, bearing S. S. E. $\frac{1}{4}$ E., 27 miles distant from Diana Bank, (see No. 1123.) Is not shown on charts nor alluded to in directories. On the contrary, Findlay's S. Pac. Directory, p. 657, (on Flinder's authority,) says that all is clear to the eastward of the Diana Bank.

Not supported by other authorities, nor shown on charts.

After the French steamer Duroc had been wrecked on Melish Reef, (see No. 1149.) boats were sent to obtain aid, and one of them fell in with an island of red sand without any rocks in the position given. No such island is reported on any other authority. It may have been one of the Farquahar Group, to the south of this position.

From this point (determined by Capt. Denham, of H. B. M. surveying steamer Herald) the Holmes Reef extends 13 miles eastward and 7 miles northward. It is not shown on Blunt's general chart of the South Pacific, 1864.

1135 1136	Curacoa Reef..... (And Soundings).....	15 32 00 S. 15 39 00 S.	173 29 00 W. 173 16 00 W.	H. B. M. ship Curacoa..... (Merc. Mar. Mag., 1866, p. 59; Naut. Mag., 1866, p. 166.)
1137	Shoal.....	16 03 00 S.	157 37 00 E.	Capt. Young, of the brig Lina.....
1138	Island.....	16 10 00 S.	171 42 00 W.	Capt. Gray, U. S. Consul at Tahiti.
1139	Island.....	16 24 00 S.	152 44 00 W.	Lieut. of French steamer Duroc... (Naut. Mag., 1857, p. 263.)
1140	Holmes Reef, south- west extreme.	16 30 00 S.	147 47 45 E. 16 30 00 S. 147 47 45 E.	Naut. Mag., 1861, p. 221.....

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1141	Willis Islands..... Do..... Do.....	16 07 00 S. 16 17 00 S. 16 16 48 S.	150 03 00 E. 150 01 00 E. 150 01 00 E.	16 17 00 S. South	150 01 00 E. Island.	{ Horsburgh, II, p. 764. Findlay's S. Pac. Direct'y, p. 657. Ann. Hydr., XXVII, p. 434.....	(There is confusion in charts and directories in regard to dangers reported in this vicinity. It appears to be probable that four distinct groups exist: (1.) The Coringa Islands, (No. 1143,) the first reported and the best established, and the only one of all these dangers laid down on Blunt's chart of the South Pacific Ocean, (1864,) and in Raper's catalogue, (1863.) The Coringa packet was lost on the northeast island in 1845, and then its latitude was determined to be in 16° 52' 30" S., and the longitude, by chronometer, 149° 55' E., and by 20 lunar observations, 149° 55' 45" E. The island is about 10 feet above the level of the sea, surrounded by a reef, which is dry in some places at low water, the whole extent of it not exceeding 4½ miles in circumference. Another small island was seen 4 miles to the southwest, with apparently a safe passage between the two. The captain of the Coringa is of the opinion that other dangers (the other group) exist in the vicinity, which he passed on the third night after leaving in boats, although he saw nothing by daylight. The part of the crew left, and the schooner Frolic, sent to bring them off, verified the position, as well as, subsequently, Capt. Dobson, of the ship Ariel. Capt. Pearson, of the ship Cashmere, passed between the two islands in 1853, and says they are covered with bushes 18 to 20 feet high, apparently with a fine, sandy beach; he saw heavy breakers extending from the southwest end of the west island, and from the northwest end of the east island. (2.) The boats of the Duroc, mentioned (No. 1139,) discovered (1856) on their passage to Timor an island, 23 feet above the water, and a reef 6 miles N. N. W. of it. Capt. Denham, of H. B. M. surveying steamer Herald, found in 1860 an islet, 21 feet high, covered with bushes and encircled by a reef one mile in circumference, near the position given by the Duroc's officers, and a sand-bank 6 miles N. 23° W. of it; also a sounding of 11 fathoms 4 miles west of the southern island. Capt. Paterson, of the brig Lucille, reports, in 1865: "About 30 or 40 miles N. E. of the Coringa Islands saw two islets, one of which I named Patterson Island, resembling
1142	Patterson Cays, south cay. Magdalena Cays..... Do.....	16 26 00 S. 16 35 00 S. 16 35 47 S.	150 31 30 E. 150 19 00 E. 150 19 37 E.	16 36 00 S. South	150 19 37 E. Island.	{ Capt. Patterson, of brig Lucille.. Boats of the French str. Duroc.. Capt. Denham, Brit. Royal Navy. (Naut. Mag., 1865, p. 155, and 1857, p. 263.)	
1143	Willis Islands, east island. Coringa Island, east island. Coringa Island, west island. Coringa Island, east island.	16 52 30 S. 16 53 00 S. 16 55 00 S. 16 53 00 S.	149 55 45 E. 149 51 00 E. 149 43 00 E. 149 55 00 E.	16 53 00 S. East	149 55 00 E. Island.	{ Naut. Mag., 1845, p. 556..... Capt. Pearson, (Naut. Mag., 1853, p. 698, and 1854, p. 36.) Schooners Frolic, 1845, and Ariel, 1849.	
1144	Herald Cays, north-east cay.	16 56 00 S.	149 12 00 E.	.....	.....	Findlay's S. Pac. Direct'y, p. 606..	

Coringa, of the same size and height, and covered with trees, with a good anchorage under the southeast side—a kind of bay, formed by a small reef running out from each end, with good holding ground, in from 10 to 5 fathoms. The other, which I named Lucille Bank, is a barren sand, much larger than Patterson Island, from which it is N. W., about 6 miles, surrounded by reefs, except on the west side, with stones on it 15 to 20 feet high. On the same day passed Coringa Island, and tested chronometer by it and the Barrier Reef." Evidently, notwithstanding the great difference in position, the discoveries of the Duroc and Capt. Patterson are identical, and the Duroc's position, being corroborated by Capt. Denham, is doubtless correct.

(3.) The Willis Islands (No. 1141) are described by both Findlay and Horsburgh in nearly the same words, with the exception of the latitude, and this difference is surely owing to a clerical or typographical error of one or the other. Capt. Denham, of H. B. M. surveying steamer Herald, appears to be the authority for both. His description is copied into the "Annales Hydrographiques" with 16° 16' 40" S. as the latitude of the Southern Island, which probably is correct. The group, stretching for 13 miles north and south, in a breadth of 5 miles, consists of three islets interspersed with reefs. The southern islet is about 1,200 feet in circumference, 33 feet high, and covered with verdure; a coral reef runs from it, a quarter of a mile to the north and 1 mile to the south, which is again surrounded by a bank, extending $\frac{1}{4}$ to $\frac{1}{2}$ mile from the reef, with 3 to 19 fathoms water over it. The middle island lies 4 miles N. 18° E. from the southern one, on the west end of a reef, which uncovers at half tide, and has a circumference of about half a mile. The island is smaller, 22 feet high, and is likewise covered with shrubs. A rocky ledge, with $3\frac{1}{2}$ to 5 fathoms water over it, runs from the north end of the reef, about two-thirds of a mile N. W. by N., half a mile W. N. W., and half a mile south of the southwest point of the main reef there is foul ground and irregular soundings, in from $3\frac{1}{2}$ to 17 fathoms. Between the north point and a rock with 22 feet water over it, lying half a mile W. by N. of the islet, there is a small bay, with foul ground in from 9 to 20 fathoms water; less than two cables from the N. W. end of Middle Island the lead showed 14 fathoms. Between the south and the middle island is a clear channel, in from 7 to 20 fathoms water; the reef should not be approached nearer than one mile. The northern cay, situated $5\frac{1}{4}$ miles N. by W. from Middle Islet, is a barren sand-bank, $\frac{3}{4}$ mile long E. and W., with a much smaller cay near its W. end, and is situated at the N. end, and $1\frac{1}{2}$ mile from the eastern elbow of a reef, which has nearly the form of a cross; to the south of it the ground is quite foul. The channel

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1145	Mopelia Island.....	16 50 00 S. 16 46 00 S.	154 21 00 W. 154 08 00 W.	0 ' "	0 ' "	Capt. Hammond, H. B. M. Navy— Cook and Wallis..... (Naut. Mag., 1847, p. 379.)	between the middle island and the northern cay is divided in two by a bank of small reefs awash, over which the sea breaks, with some sunken rocks to the westward of them, and irregular soundings of 6 to 20 fathoms. The channel between Middle Island and the bank is 1½ mile wide, and carries from 8 to 23 fathoms. The channel between the bank and the reefs extending from the north cay is two-thirds of a mile wide, and has 10 fathoms water. The Herald found anchorage in 24 fathoms, over coral sand, 2½ miles south of the north cay. The rise and fall of the tide was observed to be 6 feet; variation, 1864, 7° 11' E. (4.) The original authority for the Herald Cays, (No. 1144,) two small reefs, 4 miles apart northeast and southwest, the northern 23 feet high, is not known. { The positions of Lord Howe's Island of Wallis, or Mopelia of Cook—Mopiha by the natives—has been corrected by Capt. Hammond. The Winslow found herself in the midst of 26 reefs, not laid down on charts in the reported locality. Capt. Labaste was probably further to the eastward, where some groups of reefs are shown on charts. Neither laid down on charts nor mentioned by any authority. To the northward of Flinder's Reef Capt. Denham found unexpectedly a breaker, which nearly occasioned the loss of the Herald. The British Admiralty chart of the Coral Sea shows it; but it is not on Blunt's general chart of the Pacific Ocean. The officers of the Duroc, which ship was wrecked on this reef, place it in the reported position; Horsburgh's Directory (1864, II, p. 764) gives it nearly so, (17° 24' 45" S., 155° 52' 45" E.;) Findlay's Directory, 2d edition, p. 655, says that subsequent examinations place it in 17° 35' S., 155° 53' E. This should be examined into, to ascertain whether Young's Reef, reported in the same latitude, 17° 35' S., and in 155° 20' E., is the same or a separate reef.
1146	Reefs	16 57 00 S.	180 17 00 E.			Capt. Labaste, of ship Winslow... (Ann. Hydr., 1864, I, p. 235.)	
1147	Reef.....	17 05 00 S.	175 00 00 E.			San Francisco Herald.....	
1148	Herald's Surprise.....	17 21 18 S.	148 28 50 E.			Capt. Denham, of H. B. M. surveying steamer Herald. (Naut. Mag., 1861, p. 221.)	
1149	Mellish Reef and Cay.	17 23 00 S.	156 00 00 E.			Lieut. Vassière, comdg. French steamer Duroc. (Naut. Mag., 1857, p. 263.)	

1150	Shoal off Point Venus, (Tahiti.)	17 29 00 S.	149 33 00 W.	.....	San Francisco Herald.....	A shoal, with 18 feet water on it, seen by the French ship St. Clair in 1843, Point Venus bearing E. by S., (by compass,) distant 4½ miles; would be nearly 2 miles outside of the Dauphin Bank, the westernmost danger reported on French authority.
1151	Tregrosse Reefs.....	17 43 00 S.	150 43 00 E.	.....	{ Ann. Hydr., XXVII, p. 434..... Horsburgh, II, p. 764.....	{ The Tregrosse Islands and Reefs are generally placed on charts 30 to 50 miles W. by S. from the S. W. extreme of the Lihou sand cay. They have not been examined by surveyors; but it is supposed that they are two islands distant N. and S. 4 miles from each other, and surrounded by reefs. The position is that given to the Southern Islet. Two reefs are said to lie W. S. W., distant 6 to 13 miles from the South Islet.
1152	Reef.....	18 00 00 S.	174 48 00 E.	.....	Naut. Mag., 1847, p. 379.....	Reported by Capt. Hammond, of H. B. M. ship Salamander; is generally marked on charts.
1153	Palmerston Isles.....	18 04 00 S.	163 10 00 W.	.....	Mr. Jos. Vandor, U. S. Consul at Tahiti.	Mr. Vandor reports that, during a hurricane which lasted from January 30 to February 1, 1865, one of the Palmerston Isles, the northeastern one of the group, and a part of the coral reef bordering it, were washed away, leaving very dangerous breakers. In this locality the bark Julia Cobb, of Bucksport, Maine, was wrecked, Nov., 1864, also the bark Bellissima, of Liverpool, in March, 1866. The reported position is that of the centre of the lagoon, from recent determinations, and coincides with that of Capt. Jas. Cook, the discoverer of the group. The British Admiralty chart of 1866 places these isles in latitude 18° S., longitude 163° 05' W. A typographical error in Findlay's new edition of the South Pacific Directory places them in longitude 163° 10' east instead of west.
		18 08 00 S.	169 20 00 W.	.....	Arrowsmith's chart..... (Findlay's S. Pac. Direct'y, p. 498.)	Three islands, said to be inhabited, could not be found by Capt. Erskine, H. B. M. Navy, within 60 miles of their assigned position. This officer believes that they are identical with the Savager or Danger Island, 19° 10' S., 169° 50' W. Blunt's chart shows three islands, but in 17° 55' S.
1154	Reef.....	18 10 00 S.	175 00 00 E.	.....	China Mail.....	{ These positions, doubtless, are identical, and refer to the reef on which the ship Mucalo is said to have been lost. The ship Mary Catharine, Capt. Fox, passed them, with a clear atmosphere, but no indication of danger could be seen. The reef is generally marked on charts, varying in positions from 10 to 20 miles.
1155	Do.....	18 10 00 S.	175 12 00 E.	.....	Some charts.....	
1156	Do.....	18 11 00 S.	175 15 00 E.	.....	Capt. Hammond, H. B. M. Navy..... (Naut. Mag., 1848, p. 574, and 1856, p. 262.)	
1157	Reefs.....	18 13 00 S.	146 20 00 E.	.....	Capt. McKenzie..... (Naut. Mag., 1847, p. 173.)	Reefs reported 10 or 12 miles to the eastward of Cape Sandwich; are not shown on the British Admiralty chart of the Coral Sea, (1864.)

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1158	Mumbolithe Reef.... Do..... Do..... Do.....	18 16 00 S. 18 14 36 S. 18 13 25 S.	179 26 00 E. 179 23 00 E. 179 17 50 E. 179 17 34 E.	} 18 14 30 S.	179 17 50 E.	{ H. B. M. ship Calliope..... U. S. Exploring Expedition..... Capt. Denham, British Navy..... Findlay's S. Pac. Direct'y, p. 522. (Naut. Mag., 1853, p. 456, and 1855, p. 337.)	{ A coral structure, awash at low water, forming an oval rim, a smooth pool within which is not accessible, measures one mile north and south, by six-tenths of a mile in width, and lies 5 8-10ths miles S. 18° W. from the islet off the south extreme of Angou. Wilkes (III, p. 187) says 14 miles, (probably an error.) Between this reef and the Boundary Reef of Angou, 5½ miles apart, (Findlay says 4½ miles.) Capt. Denham obtained soundings in 753 fathoms, each reef being so steep as to give no soundings in 200 fathoms half a mile off. Blunt's chart of the South Pacific does not show this reef.
1159	Pickerton Reef.....	18 34 00 S.	164 32 00 E.			China Mail	
1160	Island.....	18 43 00 S.	141 12 00 W.			Raper's Tables, XXVI.....	
1161	Rock off Palm Island.	18 43 30 S.	146 43 30 E.			Commander Young, of H. B. M. ship Salamander. (Naut. Mag., 1866, p. 218; Merc. Mar. Mag., 1866, p. 123.)	

Is identical with the Betsey or Petrie Reef, generally located there on charts.

An island reported to exist 30 miles east of Lastang or Nengo-Nengo, (Low Archipelago;) is not laid down on charts.

Commander Young reports a dangerous rock rather more than 2 miles off the northeast point of Great Palm Island, on the east coast of Australia, named by him Hayman Rock. Its northeast point is awash at low water, and from it the centre of the White Rock (off the southeast point of the island) bears S. E. ¼ S., distant 3 miles, the southeast point of Great Palm Island S. ¼ E., 2¼ miles, and the northeast point of Great Palm Island W. ¼ N., 2¼ miles distant. From its northern part the rock extends in a southwest direction at least 100 yards, and about 20 yards in breadth, with 3 and 4½ fathoms water on it, shelving to 9 fathoms. Between it and the Great Palm Island there are 10 and 13 fathoms, and eastward of it 15 fathoms, mud. No landing could be effected on account of the sea. The approximate rise of tides in springs may be 8 or 10 feet. When bound to the northward, and closing the Palm Island, bring the centre of the northernmost island to bear N. W. by W. ¼ W., and steer for it until the northeast point of Great Palm Island bears W. by S.; then keep a little to the westward, to avoid the Zebra and other doubtful shoals to the north. Variation, 1866, 6° 55' E.

The Chilcott Rocks, shown in the latest editions of the British Admiralty chart, and reported to be 5 feet above high water, were not seen by Capt. Richards, of H. B. M. ship Hecate, when passing, in a clear day, within 3 miles of the position assigned to them.

(This island was heretofore placed on charts according to the determinations of its discoverer, (Capt. Bligh, of the ship Bounty,) which may now be superseded by those of Capt. Harvey, who visited it in 1860. Capt. Harvey gives the position of the highest hill, (410 feet high,) assuming Honolulu to be in 157° 49' W. The additional description which he gives may be useful. He says: "The main island is about 5 miles long by 3 miles broad. With the exception of a beach, 1½ miles in extent, on the north-west side, the island is surrounded by a reef. From the middle of the beach the above-mentioned hill rises. To the southward of the beach is a peculiar high rock, about 300 feet high, showing a remarkably bold front of dark stone. The reef commences at a rocky point terminating the beach, and extends in a southwest by south direction, connecting the island with another small one, covered with trees, distant 5 miles from the south point of the principal one; and from this small island the reef continues nearly due east for 8 miles, enclosing a group of 7 or 8 small islands, all thickly wooded, the outer one being 5 miles S. E. from the south point; from this the reef appeared to trend to the north. The best approach is from the northwest, the reef extending some distance outside the islets. No bottom was found with 110 fathoms line. The entrance to the lagoon is about half a mile south of the rocky point before mentioned. Of its eastern shore we know very little."

In some charts called Danger Island; is a discovery of Capt. Cook. Capt. Erskine, H. B. M. Navy, in 1849, placed its northwest point in 19° S., 169° 50' 40" W., and made it 9 miles long from southeast to northwest.

Is not shown on charts, nor is it reported on any other authority.

The Wesley reports to have sighted an island, lately thrown up by volcanic action, which was on fire all over. She sounded around the island, but found no bottom at 45 fathoms; shoal water was found on the south-southwest side. No danger is laid down there on charts, and the existence of the island is not probable.

1162	Chilcott Rocks.....	18 49 00 S.	146 45 00 E.	.....	Ann Hydr., XXVII, p. 405.....	
1163	Whytoo-tacke Island, (Harvey Group.)	18 49 40 S.	159 43 40 W.	.....	Capt. Harvey, H. B. M. ship Ha- vanna. (Naut. Mag., 1860, p. 521.)	
	Whytoo-tacke Island, (Harvey Group.)	18 54 00 S.	159 32 00 W.	.....	Raper's Tables.....	
1164	Savage Island	18 55 00 S.	170 00 00 W.	.....	Capt. Gray, U. S. Consul at Tahiti. (Findlay's S. Pac. Direct'y, p. 497.)	
1165	Shoal.....	19 15 00 S.	143 30 00 W.	.....	Whaler report.....	
1166	New Island.....	19 16 00 S.	155 00 00 E.	.....	Ship John Wesley..... (Naut. Mag., 1858, p. 166.)	

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1167	Reef off Tonga.....	19 18 00 S.	174 12 00 W.			Naut. Mag., 1853, p. 382. Capt. Disney, of whaleship Frolic. Comdr. Parker, British Navy..... H. B. M. ship North Star..... (Findlay's S. Pacific Directory, pp. 398 and 401; Naut. Mag., 1866, p. 50; Merc. Mar. Mag., 1866, p. 7.)	The North Star touched in 1844, only for an instant, and had immediately afterwards 7, 9, 10, and 18 fathoms. Capt. Disney obtained soundings in 9 fathoms, deepening to 40 fathoms; but from appearances there was much less water. Capt. Virgin, of the Swedish ship-of-war Eugenie, saw breakers, according to his reckoning, bearing N. N. E. $\frac{1}{2}$ E., distant 25 miles from the easternmost point of Haano Island, and which he thinks are identical with the North Star or Disney Reef. The discrepancy in position he attributes to the incorrect place which the east point of Haano occupies on French charts, in 1740 01' 30" W., and which, from good observations, and three chronometers, rated 10 days before, he corrects to 1740 22' W. The master of H. B. M. ship Calliope (Mr. Knox) corroborates the existence of Capt. Virgin's reef; but at the same time communicates information by pilots that there is a continuous line of soundings from Haano to the southernmost of the Varao Islands, and that in bad weather the water is breaking heavily in 20 fathoms. In 1865 H. B. M. ship Falcon, Commander Parkin, when steaming to the northwest, in latitude 19° 18' S., longitude 174° 07' W., the peak of Lette Island bearing N. W., obtained soundings in 13½ fathoms, sand and coral, on what was concluded to be a portion of the Disney Reef. As much shoaler water was seen to the north, and also to the east and west, the engines were reversed, and the vessel's head brought S. E., when, after steaming ahead, she soon passed off the southern edge of the bank. The vessel was then steered south one mile, S. W. 3 miles, west 3 miles, and then N. W. by N., with the peak of Lette bearing on the port bow. When the vessel's head was southeast, broken water was seen from the mast-head east-southeast. Generally only one of these reefs (the North Star) is marked on charts.
1168	Disney Reef.....	19 15 00 S.	173 40 00 W.	.....	.....		
1169	Soundings.....	19 18 00 S.	174 07 00 W.	.....	.....		
1170	North Star Reef.....	19 20 00 S.	173 45 00 W.	.....	.....		
1171	Volcano.....(about)	19 20 00 S.	174 50 00 W.			Native reports..... (Naut. Mag., 1853, p. 432.)	The Capt. of H. B. M. ship Calliope was informed at Tongo-tabu that a volcano, or the indications of one, had been perceived about half-way between the islands of Roa and Lette, and that about 12 months previously smoke had been seen issuing from the surface of the sea. This was an object of search, but it was made without success.

1172	Reef	19 20 00 S.	152 00 00 E.	.....	.....	Capt. Brodie, of the ship Warsfell... Findlay, 1st ed., II, p. 1161..... (Naut. Mag., 1864, p. 279; Ann. Hydr., 1864, II, p. 505.)
1173	David Reef	19 20 00 S.	151 00 00 E.	.....	.....	
1174	Island	19 24 00 S.	139 24 00 W.	.....	.....	Raper's Tables, (1863,) p. XXVI..
1175	Port of Resolution, (Tannis Island.) Do	19 32 00 S. 19 31 17 S.	169 44 00 E. 169 22 00 E.	..... .....	..... .....	Capt. Cheyne. (Naut. Mag., 1848, p. 576.) Capt. Sir Edward Belcher, 1840. (Findlay's S. Pac. Direct'y, p. 538.)
1176	Reef	19 39 00 S.	162 44 00 E.	.....	.....	Naut. Mag., 1848, p. 382.....
1177	Turtle Island..... Do .....(centre)	19 50 00 S. 19 47 00 S.	178 37 45 W. 178 08 00 W.	} 19 47 00 S. } 178 08 00 W.		{ Lieut. Ringgold, U. S. Exploring Expedition. Capt. Worth, H. B. M. ship Calypso. (Wilkes' Narr., III, p. 379; Naut. Mag., 1849, p. 693; and 1855, p. 217.)
1178	Beveridge Reef.....	19 50 00 S.	160 40 00 W.	.....	.....	Capt. Pritchard, U. S. Consul at Apia.
1179	Series of Reefs. (from)	19 00 00 S.	159 00 00 E.	}	}	Capt. Labaste, of the whaleship Winslow. (Ann. Hydr., 1864, I, p. 234.)
1180	And a Reef in..... (to)	19 29 00 S. 19 53 00 S.	158 48 00 E. 158 51 00 E.			

{ The reef discovered by Capt. Brodie is of an oval form an of coral, the greatest diameter northwest and southeast, 5 or 6 miles in circumference. It is shown on the British Admiralty chart of the Coral Sea, (1864,) but not on Blunt's general chart of the Pacific Ocean. Probably it is the David Reef, reported 60 miles to the westward, for which Capt. Denham, of H. B. M. surveying steamer Herald, has searched unsuccessfully.

An island reported to exist 10 miles west of Egmont island; is not laid down on charts.

{ The difference of 15 minutes in longitude by these two authorities requires examination. Capt. Cheyne was the later visitor, and probably was aware of Sir Edward Belcher's determination. All late charts adopt the latter position.

The ship Mary is said to have been lost in this position, according to the captain's reckoning. This would be 30 miles to the westward of the reef north of New Caledonia, as generally laid down on charts.

{ Capt. Worth corrects a serious mistake, which had crept into the determination of the position of Turtle Island by the U. S. Exploring Expedition. Capt. Worth's position is corroborated by determinations of the master of the U. S. ship St. Mary's, in 1851. The English hydrographer also calls attention to dangerous reefs, of which no mention is made by Lieut. Ringgold. One runs from the island 5 or 6 miles in a southwest direction, the other, a large oval coral patch, is detached from it, and extends north and south 8 or 9 miles; both were breaking heavily. Blunt's chart of the South Pacific Ocean has the island 10 miles farther north.

No reef is shown there on charts. Beveridge Reef is generally placed (assuming it to be identical with Nicholson's Bank) in 20° 00' S., 167° 49' W. It was originally placed in 168° 40' W., (see No. 1187, and Findlay's South Pacific Directory, p. 391.)

{ Capt. Labaste passed a reef in latitude 19° 50' S., longitude 158° 51' E., with 5½ to 9 fathoms over it, trending southeast and northwest. Next day he saw more reefs. He says: "The northeast extreme of this series of reefs is in 19° 04' S., 159° 00' E.; there is an islet in 19° 16' S., 158° 53' E., and three sand cays forming the east extreme in 19° 22' S., 158° 56' E.; the southeast part extends to 19° 29' S., 158° 48' E., and many small reefs are near 19° 29' S., 158° 37' E." All this is a part of the Great Barrier Reef, but on charts it does not extend so far to the northeast. The British Admiralty chart of 1864 expressly states that the east extremity of the Barrier is not yet surveyed.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1181	St. Pablo.....	1 56 00 S.	145 00 00 W.	0 1 "	0 1 "	Wilkes' Narr., IV, p. 261.....	This island, which is placed by all other authorities (among them Wilkes, Raper, and Findlay) in 145° 00' W., is laid down on Blunt's chart of the Pacific in 144° W.
1182	Island.	20 00 00 S.	169 30 00 W.	.....	.....	Whaler report.....	Neither shown on charts nor mentioned by other authorities.
1183	Island.	20 05 00 S.	160 30 00 W.	.....	.....	San Francisco Herald.....	The British Admiralty chart gives about there "Nereus Reef," with a (?). Blunt's chart has no danger laid down in this vicinity.
1184	Reef.....	20 05 00 S.	151 05 00 E.	.....	.....	Capt. Brodie, of the ship Warsfell. Lieut. Vine, British Navy..... (Ann. Hydr., 1864, II, p. 505; Naut. Mag., 1864, p. 279; Findlay, 1st ed., II, p. 1161.)	{ The Horse-shoe Reef of Lieut. Vine, said to extend 15 miles south and east, with the convex side to the southward, was searched for unsuccessfully by Capt. Denham, in H. B. M. surveying steamer Herald; 200 to 250 fathoms were found on its reported site. Subsequently the Warsfell discovered a reef 45 miles to the westward, describing it as 10 miles in circumference, in form of a horse-shoe, open to the north-northeast. Latitude and description prove these reefs to be identical. Blunt's chart (1864) has neither the one nor the other.
1185	Horse-shoe Reef.....	20 05 00 S.	151 50 00 E.	.....	.....		
1186	Howard Island.....	20 06 00 S.	167 39 00 W.	}	}	{ Capt. Howard, of ship Hermione. Capt. Nicholson..... Sir Edward Belcher..... Capt. Suisset, French Navy..... (Naut. Mag., 1855, p. 604; Ann. Hydr., XI, p. 19, and XVI, p. 510; Findlay's S. Pac. Directory, p. 391.)	{ Capt. Howard states that he discovered a coral island, three miles in length and half a mile in width, the position of the centre of which he gives as shown opposite, assuring that he found his chronometers correct a few days before and afterward. Findlay thinks this island is a part of the Nicholson or Beveridge Reef, which had become dry since Captain Belcher's visit. On the British Admiralty chart only the Nicholson Reef is shown. Blunt's chart has Lagoon Island in 20° 12' S., 167° 40' W., in addition. Arrowsmith's and Norrie's charts exhibit, instead of the Nicholson Reef, respectively Middleton and King George's Reefs, in slightly different positions.
1187	Nicholson Island.....	20 05 00 S.	168 40 00 W.				
1188	Do.....(S. W. end)	20 02 00 S.	167 49 00 W.				
1189	Do.....	19 55 30 S.	168 08 00 W.				
1190	Coral Reef.....	20 10 00 S.	179 15 00 E.	.....	.....	Capt. Davenport, of the American ship Alfred. (Ann. Hydr., VII, p. 14.)	An acre in extent, with 12 feet water over it. No danger is laid down near this vicinity on Blunt's chart of the Pacific Ocean. The British Admiralty chart has a dry reef in 20° 20' S., 179° 20' W.

The Culebras Bank, reported to have been seen by Man-
relle and La Perouse, and said to be 6 miles in extent
N. by W. and S. by E., has repeatedly been searched
for without being found. H. B. M. ship Falcon, in 1865,
when passing to the westward of the Hapai Group,
Honga Island bearing S. $\frac{1}{2}$ E., Hapai Island S. $\frac{1}{4}$ E., and
the sugarloaf top of Kao Island seen over the eastern
part, Tofao N. by E. $\frac{1}{4}$ E.; breakers were observed
S. S. W. $\frac{1}{4}$ W., distant 4 to 5 miles, on what was sup-
posed to be the Culebras Reef, in 20° 19' S., 175° 24' W.
The top of Kao Island in line with the centre of Tofao
would lead on or very close to the reef. H. B. M. ship
Havannah, in 1849, passed through a clear channel about
midway between Culebras Bank and Namuka Island by
keeping Kao Island open to the eastward of Tofao Island.
Variation, in 1865, 10° E.

This reef, reported to lie about 90 miles S. W. of the south-
west extreme of Kantavu Island, one of the Fejees, was
sought for unsuccessfully by Capt. Denham, of H. B. M.
ship Herald, for over 25 miles on its given parallel. In the
reported position no bottom was reached with 450 fathoms
line. Late charts omit it.

This danger, lately discovered, is an isolated, peaked rock,
above the water, but believed to be awash at high water
spring tides. It lies in the direct route of ships entering Port
Molle by the northern channel, and bears W. 7° S. from
the north extremity of the Molle Islands, distant about 1
mile. When entering or leaving Port Molle by the north
channel, if the rock is not seen, a wide berth should be
given to the westernmost (the smallest) of the Molle
Islands as soon as it is seen, in order to avoid the rock.

Not mentioned by other authorities.

The Spitfire Rock, which is reported to exist in the Whit-
sunday Passage, distant 1 mile from the west side of Shaw
Island, and to be awash at high water, was not seen by the
sloop-of-war Hecate when passing two miles west of the
reported position. The rock is marked on the British
Admiralty chart of the Coral Sea.

This reef is not mentioned by any other authority; it may
be identical with the Culebras Bank, No. 1191.

The Squaw struck heavily on a bank, with 10 or 11 feet of
water over it, remaining fast one hour. The part she went
over was about a quarter of a mile long; it was dark at
the time. Charts show the bank as "A report."

1191	Culebras Bank	20 15 00 S.	175 05 00 W.	.....	Naut. Mag., 1853, p. 420.
1192	Do	20 19 00 S.	175 24 00 W.	.....	Merc. Mar. Mag., 1865, p. 11.
1193	Reef	20 09 00 S.	175 08 00 W.	.....	Some charts
1194	Underwood Reef	20 20 00 S.	177 00 00 E.	.....	Merc. Mar. Mag., 1863, p. 214.
1195	Pioneer Rock	20 17 00 S.	148 52 30 E.	.....	Ann. Hydr., XXVII, p. 398.
1196	Reef	20 21 00 S.	136 20 00 W.	.....	San Francisco Herald
1197	Spitfire Rock	20 27 00 S.	149 05 00 E.	.....	Ann. Hydr., XXVII, p. 399.
1198	Reef	20 32 00 S.	175 45 00 W.	.....	Capt. Pritchard, U. S. Consul at Apia.
1199	Shoal	20 38 00 S.	114 16 00 E.	.....	Capt. Reid, of the brig Squaw..... (Merc. Mar. Mag., 1860, p. 190.)

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1200	Reef	0° 50' 00" S.	0° 17' 40" 00 W.	0° 15' 00" S.	0° 15' 00" S.	Capt. Home, H. B. M. Navy..... (Naut. Mag., 1845, p. 322.)	The North Star, commanded by Capt. Home, struck unexpectedly, just after having had a cast of the lead with no bottom at 30 fathoms, and then sounded through a passage with breakers on each side in 7½, 8, 8½, 9, 10, and 18 fathoms. At 5.30 p. m. the ship had been 10 or 11 mil N. W. ½ W. of Eoaige Island, and then had sailed 17 miles N. 54° E. up to the time she struck, but apparently she had been set to the westward by current. The exact position of the reef is therefore doubtful.
1201	Fairway Reef	21° 00' 15" S.	161° 45' 09" E.	21° 00' 15" S.	161° 45' 09" E.	Capt. Denham, of H. B. M. steamer Herald. (Naut. Mag., 1855, p. 359.)	A reef, half a mile long by a quarter of a mile broad, reported in 1791, but doubted by most authorities, has been seen again by Capt. Denham. It is now laid down on charts.
1202	Ono Island	21° 02' 00" S.	156° 40' 00" W.	.....	.....	Capt. Pritchard, U. S. Consul.....	Not known to other authorities nor shown on charts.
1203	Heroine Reef	21° 05' 00" S.	152° 50' 00" E.	.....	.....	Capt. McKenzie, of the schooner Heroine. (Naut. Mag., 1845, p. 492.)	The Heroine passed close to a reef in the reported position; it appeared to be of horse-shoe form, with deep water inside the opening to the west, and about 10 miles in extent. At the same time the Barrier Reef was seen from the royal mast-head bearing W. S. W. Blunt's general chart of the South Pacific does not show this reef.
1204	Reef	21° 08' 00" S.	161° 35' 00" E.	.....	.....	Naut. Mag., 1848, p. 574.....	This is probably an incorrect position of the Fairway Reef, No. 1201. No danger is shown there on charts.
1205	Armstrong Island	21° 10' 00" S.	159° 00' 00" W.	.....	.....	Capt. Reynolds.....	Is probably Rorotonga Island, which, according to Du-tailis, lies 50 miles to the westward of the reported position of Armstrong Island.
1206	Welsh Reef	21° 15' 00" S.	153° 56' 00" E.	.....	.....	Naut. Mag., 1860, p. 170.....	The site of this danger, which had been reported in 1820, was examined by Capt. Denham, H. B. M. Navy, but nothing was found. It is omitted now from most charts.

{ The site given to the Tamar Shoal by old reports was searched by Capt. Denham, who, instead of finding a shoal, did not reach bottom there with 200 fathoms line. But Capt. Pollock subsequently reports, that 10 miles to the eastward of the first position he passed within a cable's length of a shoal, which appeared to be 300 feet square, and 2 feet under water. This, probably, is the Tamar Shoal which is shown by British Admiralty charts in 161° 37' E. Blunt's chart of the South Pacific does not show it.

Is not mentioned by any other authority nor shown on charts.

Captain Simpson reports a large and dangerous reef east of New Caledonia. It is marked with a (?) on the British Admiralty chart of the Pacific, but is not shown on Blunt's chart.

Of 2 cables' length; is probably the Nicholson Rock, laid down on some charts (Blunt's) in 168° 40' W. Having been seen in a gale, its position is very uncertain.

Reported by Capt. White, of the ship Medway, in 1824; it is the Rorotonga Island of later authorities. The British Admiralty chart of the Pacific marks Roxbury with a (?), in addition to Rorotonga.

This may be the Osnaburg Island discovered by Carteret, 1767, and placed by Capt. Beechy in 21° 50' 32" S., 138° 44' 28" E. The latter surveyor is confident of having proven the identity of the reported island with the reef of coral rocks on which the whaleship Mathilda is reported to have been wrecked (1792) in 22° S., 138° 34' E. This part of the Low Archipelago requires a more thorough examination; charts differ very much in this vicinity.

No danger is shown there on charts. The reported reef is probably another position for No. 1205.

{ All these positions are for one and the same danger, which is proven from the coinciding descriptions, as far as they are given. The most reliable of these positions is unquestionably that deduced from the survey of Capt. Denham, of H. B. M. surveying steamer Herald, which is given opposite as the probable one. The reef is about one mile in extent northeast and southwest, and half a mile broad, with a small sand island, five feet above the water, on its northeast extreme. The British Admiralt chart shows it in Capt. Denham's position. Blunt's chart exhibits, instead of it, a reef, with a (?), in 21° 40' S., 175° 10' E.

1207	Tamar Shoal.....	21 22 00 S.	161 37 00 E.	.....	.....	.....	Old reports..... Capt. Pollock, of ship Esmeralda. (Findlay's S. Pacific Directory, p. 658; Naut. Mag., 1862, p. 280.)
1208	Do.....	21 22 00 S.	161 47 00 E.	.....	.....	.....	
1209	Reef.....	21 25 00 S.	164 04 00 W.	.....	.....	.....	San Francisco Herald.....
1210	Reef.....	21 30 00 S.	166 50 00 E.	.....	.....	.....	Capt. Simpson..... (Naut. Mag., 1848, p. 574.)
1211	Thos. Dickason Reef.	21 32 00 S.	168 54 00 W.	.....	.....	.....	China Mail
1212	Roxbury Island.....	21 36 00 S.	159 40 00 W.	21 11 30 S.	159 50 00 W.	.....	Horsburgh, 6th edition, II, p. 819, and 8th edition, II, p. 805.
1213	Island.....	21 39 00 S.	138 32 00 W.	.....	.....	.....	China Mail
							(Findlay's S. Pac. Direct'y, p. 444.)
1214	Reef	21 40 00 S.	169 25 00 W.	.....	.....	.....	Capt. Pritchard, U. S. Consul at Apia.
1215	Rapid Reef.....	21 40 00 S.	174 40 00 E.	} 21 44 45 S.	174 37 45 E.	.....	{ China Mail
1216	Reef and Sand-bank.	21 41 00 S.	174 35 00 E.				{ San Francisco Herald.....
1217	Rapid Reef.....	21 36 00 S.	175 10 00 E.				{ Honolulu Friend.....
1218	Mercator's Shoal.....	21 42 00 S.	174 47 00 E.				{ Ship Mercator.....
1219	Reef	21 43 00 S.	174 45 00 E.				{ Naut. Mag., 1848, p. 574.....
1220	Reef	21 40 00 S.	175 10 00 E.				{ Merc. Mar. Mag., 1859, p. 29.....
1221	Conway Reef.....	21 44 45 S.	174 37 45 E.				{ Merc. Mar. Mag., 1863, p. 212..... (Findlay's S. Pac. Dir'y, p. 407.)

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1223	Reef	0 ' " 21 42 00 S.	0 ' " 167 45 00 W.	0 ' "	0 ' "	San Francisco Herald.....	Not shown on charts; probably another position for the Dickason or Nicholson Reef, No. 1187.
1223	Four small islands...	21 50 00 S.	154 00 00 W.	} 21 50 00 S. 154 00 00 W.	} 154 00 00 W.	{ Honolulu Advertiser, Sept., 1846. Naut. Mag., 1846, p. 322, and Ann. Hydr., XXVII, p. 334. Naut. Mag., 1847, p. 268..... Findlay's S. Pac. Dir'y, p. 387..	(The first three reports demonstrate the great necessity of caution in using the hydrographic notices of newspapers and periodical journals in the correction of charts. They are reprints of one and the same communication from Capt. Sands, of the whaleship Tucker, giving the same words, with the exception of the observed longitude, in which all three differ, respectively, 4 and 39 degrees from that which appears to be the true position. Capt. Sands reports the discovery of four small islands about 2 degrees W. N. W. 4 W. from Rimitera, which islands occupy a circumference of about 10 miles, with very high breakers all around them, the highest point of land not rising above 10 feet. That Capt. Sands has mentioned the bearing and distance from Rimitera is only accidental, as from his discovery he could not see that island, and in all probability he did not take his departure from it. But for this accidental circumstance there would now be shown three groups instead of one on the charts, creations of the printer or copyist. In fact, English and French charts mark the islands as doubtful in 150° W. and 154° W. The position on the meridian of 150° W. has been examined by Capt. Briart, of the French ship-of-war Néréide, who could not see any indication of an island near it. Hull Island, reported to be one league in length, 60 feet high, with breakers extending to the southeast, is the only corroboration of land existing near the meridian of 154° W.
1224	Do.....	21 50 00 S.	150 00 00 W.				
1225	Do.....	21 50 00 S.	115 04 00 W.				
1226	Hull Island.....	21 49 00 S.	154 43 00 W.				
1227	Reef	21 43 00 S.	176 42 00 W.	.....	.....	H. B. M. ship Pelorus..... (Naut. Mag., 1861, p. 612.)	The Pelorus sounded in the position opposite, at night, in 6½ and 7 fathoms. No danger is shown there on Blunt's chart of the Pacific Ocean.
1228	Reef	21 52 00 S.	178 36 00 E.	.....	.....	Capt. Sprague, of ship Mercator...	Shown on Blunt's chart, with a (?), but not on the British Admiralty chart.
1229	Two low islands.....	21 53 00 S.	139 00 00 W.	.....	.....	Brig Dagget, (San Fran. Herald).	Probably the Osnaburg Island. (See No. 1213.)

(Findlay, in the 1st edition of his Directory, states that this reef was discovered in 1858, and that its western end was well determined to be in 21° 52' S., 154° 20' E. The reef was said to extend to the eastward as far as could be seen from the mast-head, and to consist of sand-banks and rocks, some just visible above the water, others elevated from 5 to 20 feet above the surface. In the 2d edition of his work Findlay states its reported latitude to be 21° 58' S., and adds, that Mr. Ashmore, a careful navigator, passed on two occasions near either extreme of the spot it is said to occupy, but failed in seeing it. Findlay concludes that it was Wreck Reef, in 22° 11' S., 155° 19' E., which Capt. Cairns had seen. Capt. Denham, of the surveying steamer Herald, also failed to find the reef in 21° 58' S., 154° 20' E. It still remains a question whether 21° 52' S. was not the latitude, as reported, and whether the researches have been carried far enough to the north. The reef has been erased generally from charts.)

This island, reported by the ship Pearl as a new discovery, stretching for 25 miles N. by E., and well wooded, could not be found by Capt. Denham, of H. B. M. ship Herald. On the contrary, this officer satisfied himself that the island as reported was a misplacement of Mari or Britannia Island, the southeasternmost of the Loyalty Group, for which the description given by the Pearl fully answers. The British Admiralty have erased Barrow Island from its charts; but Blunt's chart of the South Pacific shows it, though as a small islet.

{ Captain Butler only saw very high breakers, extending 4 or 5 miles. Capt. Denham describes the danger, the position of which he corrects, as a ridge 9 feet below the water, forming a circle two-thirds of a mile in diameter, breaking only with a swell on. On the British Admiralty chart the danger is marked in Capt. Denham's position; on Blunt's chart of the Pacific (1864) it is shown in Capt. Butler's position. (Compare No. 1236.)

{ The longitude of this otherwise well explored island appears to be yet in doubt. The original determination by its discoverer (Cook) is that given by Capt. Thompson. Capt. Beechy generally differs from Cook, in the Low Archipelago, 34'; and this correction is applied by hydrographers also to Cook's longitude.

Appears not to be laid down on charts.

1230	Cairn's Midday Reef.	{ 21 58 00 S. 21 52 00 S. }	154 20 00 E. 154 20 00 E.			Capt. Cairns, of the ship Neptune. (Findlay, 1st edition, p. 1162; 2d edition, p. 653; Naut. Mag., 1860, p. 170.)
1231	Barrow or Burrough's Island.	21 59 00 S.	168 30 00 E.			Findlay, 1st edition, p. 831..... (Naut. Mag., 1854, p. 367.)
1232	Durand Reef.....	22 06 00 S.	169 02 00 E.			Capt. Butler, of the ship Walpole, 1794.
1233	Do.....	22 02 30 S.	168 39 30 E.			Capt. Denham, H. B. M. Navy..... (Findlay, 1st edition, p. 822; Merc. Mar. Mag., 1863, p. 212.)
1234	Ohiteroa Island..... Do..... Do.....	22 27 00 S. 22 27 00 S. 22 29 00 S.	150 47 00 W. 150 13 00 W. 150 20 30 W.			Capt. Thompson..... Capt. Cook, corrected by Beechy. Capt. Bruce, H. B. M. Navy..... (Findlay, 1st edition, p. 800; 2d edition, p. 387; Naut. Mag., 1854, p. 447.)
1235	Island.....	22 30 00 S.	162 51 00 E.			Comdr. Hammond, of H. B. M. ship Salamander.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1236	Walpole Island..... Do.....	0° 1' "	0° 1' "	0° 1' "	0° 1' "	Capt. Butler, of the ship Walpole, 1794, and Capt. Cheyne. Capt. Denham, H. B. M. Navy... (Findlay, 1st edition, p. 822; Merc. Mar. Mag., 1863, p. 212.)	{ Captain Denham corrects Capt. Butler's (the discoverer) position, and the difference is about the same as that between the positions given to Durand Reef (1232 and 1233) by these two authorities. This proves the identity of the reefs seen by both. Walpole Island is marked on Blunt's chart of the Pacific in Capt. Butler's position.
1237	Rimitera Island..... Do..... Do..... Do.....	22° 43' 00" S. 22° 40' 00" S. 22° 40' 00" S. 22° 40' 00" S.	152° 04' 45" W. 152° 59' 45" W. 151° 59' 00" W. 152° 20' 00" W.	..... ..... ..... .....	..... ..... ..... .....	Capt. Thompson, of ship Acis... Capt. Bruce, H. B. M. Navy... Capt. Houston, H. B. M. Navy... Capt. Henry..... (Findlay's S. Pac. Dir'y, p. 387; Naut. Mag., 1854, p. 447, and 1855, p. 604.)	{ With Rimitera the same difficulty exists, in regard to the longitude, as stated above with Ohiteroa. The latest charts place it generally in 152° W.
1238	Reef.....	22° 40' 00" S.	156° 10' 00" E.	.....	.....	Naut. Mag., 1848, p. 574.....	{ There is no reef marked in this vicinity on charts. The position of the Australia Reef, seen by Capt. Slight and Simpson, has been searched for by Capt. Denham, of H. B. M. steamer Herald, but bottom was not reached with from 200 to 450 fathoms line.
1239	Australia Reef.....	22° 45' 00" S.	156° 06' 00" E.	.....	.....	Merc. Mar. Mag., 1859, p. 158.....	
1240	Nautilus Bank.....	22° 47' 45" S.	167° 40' 45" E.	.....	.....	Lieut. Chimmo, H. B. M. Navy... (Merc. Mar. Mag., 1863, p. 212.)	A coral bank, with 20 fathoms of water over it, bearing S. E. by E., distant 17½ miles from the Peak of the Isle of Pines; is not shown on Blunt's chart of the South Pacific Ocean.
1241	Reef.....	22° 47' 00" S.	151° 07' 00" W.	.....	.....	Capt. Moses, of the bark Henry..	The bark Henry is reported to have been lost on a coral reef in the reported position, over which only 11 feet water is said to be. No such danger is shown there on charts.
1242	Reef.....	22° 47' 00" S.	171° 48' 00" W.	.....	.....	Capt. Thompson, of the ship Acis. (Naut. Mag., 1854, p. 447.)	A reef, said to extend northeast and southwest about 3 miles, with heavy breakers over it. Now generally shown on charts.

1243	Pelorus Reef.....	22 22 15 S.	176 27 50 W.	.....	Naut. Mag., 1861, p. 612.....	H. B. M. ship Pelorus passed within one-third of a mile of a reef, about one-quarter of a mile in length, with not more than 1 or 2 fathoms water over it on its western end, whereon breakers were seen. Pylstaart Island was in sight, and bore N. by E., distant 30 miles. The British Admiralty charts show the reef; Blunt's chart of the Pacific Ocean does not.
1244	La Brillante Shoal... Do..... Do.....	23 13 52 S. 23 09 30 S. 23 14 00 S.	169 55 38 E. 170 11 00 E. 170 06 00 E.	23 13 52 S.	170 04 00 E.	(These are evidently positions for one and the same danger. The French frigate La Brillante, in August, 1847, very narrowly escaped a shoal, which she describes as a round mass of coral, about 130 feet in diameter, with apparently only 6 to 10 feet water over it, not breaking in a heavy swell. Soundings were obtained a cable's length off in 20 to 25 fathoms; but immediately afterwards the bottom was not reached with 50 fathoms line. This shoal then was generally placed on the charts of the Pacific Ocean. In 1854 H. B. M. surveying steamer Herald, Capt. Denham, searched for the same shoal in its assigned position, but could not find it, although for six days he cut up the ground over a space of 60 miles diameter, sounding with 200 fathoms line without reaching bottom. Capt. Denham therefore recommended that the shoal be erased from the British Admiralty charts; which suggestion appears to have been adopted. Shortly afterwards, in 1856, a French vessel fell in with the shoal again; and in 1859 Capt. Crabbe, of the Creole, passed within a ship's length of it. The sea was very smooth, and no breakers were seen, only a little foam on its edges. Capt. Crabbe is certain that there is not more than 1 fathom water on it; and he adds, that, to all appearances, the shallow part is not more than 2 cables in circumference. The British Admiralty chart of the Pacific Ocean, corrected up to 1865, has not replaced this very dangerous reef. Blunt's chart places it in 169° 45' E. { Capt. Dubrouzet, of the French frigate Brillante, 1847. A French ship, in 1856..... Capt. Crabbe, of ship Creole, 1859 (Naut. Mag., 1849, p. 259, 1854, p. 365, and 1860, p. 387; Merc. Mar. Mag., 1860, p. 254; Ann. Hydr., XIII, p. 7; and Findlay's S. Pacific Direct'y, pp. 407 and 410, foot note.)
1245	Ferrier Bank.....	23 24 00 S.	155 30 00 E.	.....	.....	This bank, which was reported by Capt. King, of the whaler Waterwitch, as situated 18 miles S. S. E. $\frac{1}{2}$ E. from the east end of the Cato Bank, could not be found by Capt. Denham, of the Herald. Capt. Cheyne thinks that Capt. King saw the eastern extremity of the Cato Bank. The Ferrier Bank has been erased from the charts.
1246	Tubuai..(north end)	23 21 45 S.	149 35 45 W.	.....	.....	This authority, stating that Tubuai is placed erroneously on charts, places the flag-staff, which is situated about the middle of the north extremity of the island, in the position opposite. In Raper's Tables it is placed in 149° 25' W., and so it is shown in the latest charts of the British Admiralty and of Blunt. Findlay adopts Mr. Delamarche's position.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1247	Rock near Bolivia....	0 ' " 23 23 00 S.	0 ' " 70 42 39 W.	0 ' "	0 ' "	Chilian war-brig Esmeralda..... (Ann. Hydr., 1863, III, p. 234.)	A rock, heretofore unknown, with 9 feet water over it, was discovered 1½ mile west of the Lagortos Reef, south of the Mexillones Bay, the Morro de Mexillones bearing from it N. 11° E. by compass, and Moreno S. 32° E. From 7½ to 12 fathoms were sounded in the channel between it and the Lagortos. This danger (the position of which is claimed to have been obtained from good observations) appears not to have been laid down on charts.
1248	Cadmus Reef.....	23 26 00 S.	138 02 00 W.	.....	.....	San Francisco Herald.....	The brig Cadmus, of New Bedford, is said to have been lost in the reported position. No danger is shown there on charts.
1249	Shoal.....	23 30 00 S.	179 15 00 W.	{ 23 37 19 S. and 23 56 22 S. }	{ 178 49 00 W. and 179 04 15 W. }	{ San Francisco Herald..... Capt. Nicholson, 1818 Do..... Capt. Folger, of whaler Canton.. Ships Favorite and Conway..... (Naut. Mag., 1855, p. 356; Ann. Hydr., XI, p. 16; Findlay's S. Pac. Directory, p. 405.)	{ The reefs discovered by Capt. Nicholson were described to be 12 feet above the water; the ship Minerva was lost upon one of them in 1831. The Canton Reef is reported to be 5 miles in circumference, with detached rocks near the surface; of the other reefs no description is given. Capt. Denham, of H. B. M. surveying vessel Herald, claims to have surveyed thoroughly this nest of reefs, and to have reduced them to two distinct reefs, (those given as probable,) upon which he landed, and which he accurately fixed. The northern one is 3½ miles north and south, and 3 miles across east and west; the southern is 2 miles in diameter east to west, and 1½ mile across north and south. Both are of the atoll character, uncover at low tide, and always show by their breakers. Soundings were obtained midway between them in 967 fathoms, bottom being brought up. Rise and fall of tide is 6 feet, the variation 10½° E. Both the British Admiralty and Blunt's chart have adopted Capt. Denham's report.
1250	Minerva Reefs... (in)	23 35 00 S.	178 00 00 W.				
1251	(and)	24 00 00 S.	178 15 00 W.				
1252	Canton Reef.....	23 50 00 S.	178 57 00 W.				
1253	Favorite Reef.....	23 35 00 S.	179 11 00 W.				
1254	Bertero Island.....	21 58 00 S.	133 32 00 W.	.....	.....	Findlay's S. Pac. Direct'y, p. 441.	{ These three dangers are said to lie in the vicinity of the Low Archipelago, the two northern of which are from old reports, and have been searched for since without success. The third is a more recent discovery, reported to be 3 miles in diameter, of coral rocks, with 5 fathoms water over them, and situated S. 54° E., 45 miles distant from the Mount Duff of the Gambier Islands. The British Admiralty chart of the Pacific shows only the Portland Reef; Blunt's chart only the Ebrill Reef.
1255	Minerva or Ebrill Reef	22 40 00 S.	133 20 00 W.	.....	.....	Do.....	
1256	Portland Reef.....	23 39 00 S.	134 21 00 W.	.....	.....	H. B. M. ship Portland.....	

1257	Avan Island.....	23 32 00 S.	162 52 00 E.	.....	China Mail.....	No such island is known to be there, and its existence is very improbable.
1258	Island.....	23 40 00 S.	163 00 00 E.	{	{	{
1259	Reef.....	23 48 00 S.	164 14 00 E.			
1260	Reef.....	23 49 00 S.	164 12 00 E.			
1261	Reef or Shoal..... (or)	23 50 00 S.	164 10 00 E.			
		23 52 00 S.	165 10 00 E.			
1262	Reef and Island.....	23 48 00 S.	104 14 00 E.	.....	Whaler report.....	Appears neither to be known on any other authority nor to be placed on charts.
1263	Oend Island.....	23 58 00 S.	131 05 00 W.	{	{	{
	Do.....	24 00 00 S.	130 31 00 W.			
	Do.....	24 01 30 S.	130 41 00 W.			
	Do.....	24 00 00 S.	130 56 00 W.			
1264	Reef.....	24 00 00 S.	179 15 00 W.	.....	Capt. Gifford, of the whaleship Caroline. (Merc. Mar. Mag., 1860, p. 190.)	The Caroline is reported to have been lost there on an unknown reef; it was probably the southern Minerva Reef (see No. 1251) on which the wreck occurred.
1265	Island.....	24 00 00 S.	159 10 00 W.	.....	Capt. Hammond, of H. B. M. str. Salamander. (Naut. Mag., 1847, p. 379.)	No description is given of this island, which is shown on many charts in or near the reported position.
1266	Rock.....	24 02 00 S.	160 16 00 E.	{	{	{
1267	Kelso Shoal (N. end).	24 12 00 S.	159 27 00 E.			
1268	Hyacinth or Capel Bank.	24 15 00 S.	159 18 00 E.			
1269	Do.....	25 15 00 S.	159 18 15 E.			
1270	(Soundings in 70 fathoms.)	23 53 00 S.	161 00 00 E.		Ann. Hydr., XXVII, p. 166.)	These reports most probably refer to one and the same danger. H. B. M. ship Hyacinth sailed on a N. N. W. course for 2½ miles over a bank on which she obtained soundings in 32 to 40 fathoms. In Horsburgh's Directory the reported latitude differs one degree, probably by a typographical error. The rock reported to be in 24° 02' S., 160° 16' E., was searched for by Capt. Denham, and could not be found. Near the reported position Capt. Denham sounded with 1023 fathoms line without reaching bottom. Subsequently a shoal was discovered by Capt. Black, the north end of which he placed as given opposite. He sounded on it in 13 to 25 fathoms water, over fine coral sand, with red specks, small shells and seaweed. This and the reported soundings by Capt. Grimes prove elevations of the bottom hereabouts, and confirm the report of the Hyacinth. Blunt's chart shows a reef in 24° S., 160° E.; the British Admiralty chart shows the Kelso as well as the Capel Bank in Horsburgh's position.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1271	Island.....	0° 14' 00" S.	0° 15' 45" 00 E.	0° 15' 00" S.	0° 15' 00" E.	Capt. Russell.....	An island, which, according to Capt. Sprague, of the ship Mercator, was seen by Capt. Russell in the reported position; is not shown on charts nor mentioned in directories.
1272	Henderson Island..... Do.....(N. point.)	24° 28' 00" S. 24° 21' 20" S.	128° 36' 00" W. 128° 19' 00" W.	.....	.....	Capt. Worth, H. B. M. Navy..... Capt. Beechey, H. B. M. Navy..... (Naut. Mag., 1849, p. 690; Findlay's S. Pac. Direct'y, p. 437.)	{ Blunt's chart of the Pacific adopts Capt. Worth's position, English charts Capt. Beechey's. The whaler Essex was sunk near this island by a whale, and it was discovered by one of her boats.
1273	Reef.....	24° 45' 00" S.	148° 20' 00" W.	.....	.....	Capt. Hammond, of H. B. M. ship Salamander. (Naut. Mag., 1847, p. 739.)	The reef is shown on charts, but as Capt. Hammond appears to have placed it only from reports, the position requires verification.
1274	Gardner's Bank.....	25° 25' 00" S.	154° 00' 00" E.	.....	.....	Naut. Mag., 1857, p. 169.....	Lieut. Chimmo (H. B. M. Navy) passed, at night and in a gale, as he judged, directly over the middle of this bank, and concluded, from the absence of any great agitation of the sea, that it does not exist. Its non-existence had been already reported by other authorities. It has been erased from the British Admiralty charts, but Blunt's chart of the Pacific shows it with 8½ fathoms water over it.
1275	Shoal near Shark's Bay.	25° 44' 00" S.	.....	.....	.....	Naut. Mag., 1851, p. 383.....	Lieut. Helpman reports a shoal, with only 11 feet water over it, S. E. from the extremity of Cape Le Villain, distant about 3 miles, on which the ship Prince Charlie struck. This would be just outside of the breakers making from Cape Le Villain in a spot where, on the British Admiralty chart of Shark's Bay, (1864,) 4 fathoms are marked.
1276	Tuanaka Island.....	25° 50' 00" S.	160° 55' 00" W.	.....	.....	Capt. Gray, U. S. Consul at Tahiti. Capt. Hammond, H. B. M. Navy... Whaler report..... (Naut. Mag., 1847, p. 379, and 1860, p. 525.)	{ These three reports, evidently independent of each other, (in addition to Arrowsmith's authority, who places Ke-min's Island 15 miles north of Capt. Hammond's position,) bear evidence of the existence of an island in this vicinity, but its exact position is quite uncertain. Capt. Harvey, in H. B. M. ship Havanna, sailed in broad daylight over Capt. Hammond's and Arrowsmith's positions without finding any indication of land. He says that there was something in the formation of the clouds in the morning which in many places resembled land, and which might have had something to do with these discoveries. Blunt's and the British Admiralty charts both show Tuanaka Island in Capt. Hammond's position, the latter chart with a ()
1277	Do.....	26° 30' 00" S.	160° 25' 00" W.	.....	.....		
1278	Drotoi Island.....	27° 17' 00" S.	159° 40' 00" W.	.....	.....		

1279	Siplan Rock.....	26 00 00 S.	173 24 00 W.	.....	Whaler report.....	No such danger is shown on charts, nor is it reported on any other authority.
1280	Shoal..... (or)	26 00 00 S. 26 02 00 S.	177 05 00 W. 177 00 00 W.	.....	San Francisco Herald..... (Naut. Mag., 1855, p. 356.)	{ This shoal has been searched for without success by Capt. Denham, of H. B. M. surveying steamer Herald, over a space bounded by 30 miles of latitude and 150 miles of longitude. Soundings were tried throughout the space, and the lead was dropped over the assigned spot (the second) into 400 fathoms without finding bottom. It is not shown on charts.
1281	Saskausen Bank.....	26 00 00 S.	167 24 00 E.	.....	Whaler report.....	No danger is marked there on charts.
1282	Reef and Island.....	26 06 00 S.	160 00 00 W.	.....	Whaler report.....	{ A third shoal, in addition to these two, is reported in 26° 05' northern latitude and 160° 00' eastern longitude, and not one of them is supported by trustworthy authority. The position assigned to Favorite Island has been searched by Capt. Denham, but nothing was found. The British Admiralty chart does not show any of these reported dangers. Blunt's chart contains those in eastern longitude on both sides of the Equator.
1283	Favorite Island.....	26 05 00 S.	160 00 00 E.	.....	Do.....	
1284	Shoal.....	26 06 00 S.	140 00 00 E.	.....	Whaler report.....	Would be in the centre of the Australian continent. In the report, perhaps, a typographical error has changed the longitude from east to west.
1285	Island.....	26 11 00 S.	163 13 00 E.	.....	Whaler report.....	Has been searched for by Capt. Denham, but was not found. It is not shown on charts.
1286	Shoal.....	26 15 00 S.	159 18 00 E.	.....	San Francisco Herald.....	{ The great number of dangers reported by navigators between the parallels of 26° 00' S. and 26° 20' S., and on or near the meridian of 160° 00' E., (compare No. 1282 and 1284,) would imply the existence of at least one of them thereabouts, notwithstanding the unsuccessful searches of Capt. Denham, the British surveyor, in these waters.
1287	Cumberland Reef....	26 20 00 S.	160 00 00 E.	.....	China Mail.....	
1288	Scott Reef.....	26 23 30 S.	105 18 00 W.	.....	Capt. Scott, of the bark Druid..... (Naut. Mag., 1855, p. 603; Findlay's S. Pac. Direct'y, p. 383.)	Capt. Scott reports breakers about 5 miles N. N. E. of Sala y Gomez; he had a good view of them from the mast-head; he saw the rollers in regular succession curling over in one spot of about a cable's length and forming tremendous breakers. Capt. Beechey (H. B. M. Navy) says that some sunken rocks lie off the northeast and southeast points of the island, which may be approached within a quarter of a mile. Findlay's Directory (2d edition) mentions the Scott Reef. On the British Admiralty chart of 1864 it is not shown. Blunt's chart places the island 60 miles further west, in 104° 22' W., instead of in 105° 20' 48", as all other authorities have it.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1289	Hutchinson Shoal....	0° 57' 00" S.	153° 28' 00" E.	0° 1' 00" S.	153° 28' 00" E.	Capt. Denham, H. B. M. Navy.... (Naut. Mag., 1860, p. 172.)	Capt. Denham discovered a 22-foot shoal N. E. of Moreton Bay. It is about 2 cables across, steep to, in 14 and 19 fathoms, with a constant current of 1½ knot setting E. S. E. It bears N. ¾ W., 2 miles from Flinder's Reef, and N. ¼ E., 5½ miles from Cape Moreton Light-house. A ship will be outside of it while the light-house does not bear southward of S. ¾ W., on which bearing the light-house is seen over the body of breakers on Flinder's Reef. Vessels passing inside of it should not bring the light-house southward of S. by E. To pass between it and Flinder's Reef, the Glass-house Craigs should be brought to bear W. ½ S., or, passing northward of it, the Craigs should not be brought westward of W. S. W. The British Admiralty chart of the east coast of Australia shows this danger.
1290	Neilson Reef.....	27° 00' 00" S.	146° 17' 00" W.	.....	.....	San Francisco Herald..... Capt. Weeks, of ship Lancaster... (Findlay's S. Pac. Direc'y, p. 385.)	{ These are the same dangers. The discoverer (Capt. Neilson) passed, in 1827, between two portions of this reef, being nearly level with the water, the reef extending to a considerable distance, curving southeast in the form of a crescent, as far as the eye could reach from the mast-head. Capt. Weeks, of the Lancaster, in 1830, describes it as 6 miles long northeast and southwest, and 1 mile broad, with from 1 to 20 fathoms water over it, the shoalest spot 100 yards S. E. from the middle of the reef. In 1834 it was reported by a whaler with from 2 to 5 fathoms water over it. Charts adopt either position.
1291	Lancaster or Osborn Reef.	27° 02' 00" S.	146° 27' 00" W.	.....	.....		
1292	Rock.....	27° 01' 00" S.	153° 28' 00" E.	.....	.....	Capt. Denham, H. B. M. Navy... (Merc. Mar. Mag., 1859, pp. 126 and 157.)	Capt. Denham reports the existence of a rock, with as little as 7 feet water over it, in the hitherto deemed fairway of the south passage into Moreton Bay. It lies midway upon a line drawn between the outer extremity of Cape Moreton and Flinder's Rocks, and bears from the light-house N. by E. ½ E. easterly, distant 2 miles. Mount Temple S. S. W. open to Cape Moreton leads one-third of a mile outside of it, and Ridge Tree Hill S. W. ¾ W., seen over, but not to the northward of North Point, leads the same distance to the south. The British Admiralty chart of the east coast of Australia shows it under the name of Smith Rock.

1293	Haymet Rocks.....	27 11 00 S.	160 13 00 W.	.....	Capt. Haymet, of the cutter Will Watch. (Naut. Mag., 1863, p. 616.)	The Will Watch passed between two rocks about a quarter of a mile distant from each other, with apparently but 7 or 8 feet of water over them, and struck on the northern one. They are not laid down on charts.
1294	Sir Chas. Middleton Island.	27 58 00 S.	159 30 00 E.	.....	Findlay's S. Pac. Direct'y, p. 659; Naut. Mag., 1854, p. 365.	This island, said to be very high, has been unsuccessfully searched for. Capt. Denham reports to have sailed over its assigned position. In Blunt's chart it is placed, on Findlay's authority, in 28° 10' S., 160° 30' E.
1295	Danger Reef.....	28 07 00 S.	153 38 00 E.	.....	Comdr. Sidney, H. B. M. Navy... (Merc. Mar. Mag., 1865, p. 317.)	This reef, reported to be 8 miles east of Danger Point, Capt. Sidney says is not in existence; he sounded there in 34 to 39 fathoms. The ripples, he thinks, are caused by an eddy. The British Admiralty chart of the east coast of Australia (1862) shows it.
1296	Shoal off Cook Island.	28 09 00 S.	153 33 00 E.	}	Capt. Sidney, H. B. M. Navy..... (Merc. Mar. Mag., 1865, p. 317.)	{ Three shoals have been found off Cook Island, which lies S. E., distant 2½ miles from Danger Point. The inner reef bears east, distant three-quarters of a mile from the island, and has as little as 9 feet water over it, and 9 fathoms are between it and the island. The middle one has 5 fathoms over it, and lies E. S. E., 1¼ mile from the island. The outer one has 4½ fathoms water over it, and lies 2½ miles E. by N. from the island. None are shown by the British Admiralty chart of the east coast of Australia.
1297	Do.....	28 09 15 S.	153 33 45 E.			
1298	Do.....	28 08 45 S.	153 34 30 E.			
1299	Island.....	28 14 00 S.	178 13 00 W.	}	Naut. Mag., 1855, p. 356.....	{ Capt. Denham searched between the parallels of 28° 06' and 28° 30' S., and between the meridians of 176° 06' and 178° 24' W., for these two islands, but did not find them. They have been generally omitted from charts.
1300	Do.....	28 30 00 S.	176 50 00 W.			
1301	Elisa Reef.....	29 30 00 S.	158 30 00 E.	.....	Merc. Mar. Mag., 1863, p. 216; Naut. Mag., 1855, p. 158.	Capt. Denham asserts that no danger exists in the position opposite. The reported one is a misplacement of the Middleton Shoal, an extensive reef whose western elbow was determined by Capt. Denham to be in 29° 27' 40" S., 159° 03' 38" E. The Elisa Reef proper, or Seringapatam, or Elizabeth Reef, whose centre lies in 29° 55' 30" S., 159° 03' 50" E., is well described in Findlay's South Pacific Directory, p. 659, but no notice is given there of the strong currents found in the vicinity of the reef by H. B. M. ship Acheron, which were observed to run E. N. E. 37 miles in 16 hours on the east side of the reef, and W. N. W. 12 miles in 10 hours on the west side. Similar currents may have caused the wrecks which have happened there.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1302	Island.....	0 1 "	0 1 "	0 1 "	0 1 "	Whaler report.....	{ These islands are not shown on charts, nor is there any other authority, except this report, known for them. Oparo Island and the Four Crowns of Quiros are the nearest islands shown on charts and in directories to the northward, while no land at all is known for a long distance in any other direction. The Four Crowns (Coronados) are also rather poorly established; Krusenstern and Vincendon Dumoulin differ 7° in their reports of their latitude. The opposite four reports suggest the existence of one or more islands between the parallels of 29½° and 30½° S., and the meridians of 143° and 145° W.
1303	Do.....	29 34 00 S.	143 00 00 W.				
1304	Do.....	30 00 00 S.	143 00 00 W.				
1305	Do.....	30 00 00 S.	144 24 00 W.				
		30 10 00 S.	143 00 00 W.				
1306	Rock.....	30 01 15 S.	153 15 45 E.			Ann. Hydr., XXVII, p. 373.....	A rock is said to exist N. E. by E., distant 2 miles from the Middle Solitary Rock, near the east coast of Australia, which does not appear to be laid down on charts.
1307	Macauley Island.....	30 08 00 S.	177 42 00 W.			Capt. Sprague, of ship Mercator... (Findlay's S. Pac. Direct'y, p. 406.)	{ Macauley Island, of the Kermadec Group, said to be small, round, very steep, with a few bushes, but without a tree, about 3 miles in circumference and 750 feet high, is placed by charts and directories in 30° 16' S., 178° 32' W.; but the authorities for this position do not appear to be of recent date. The Macauley Rocks are probably identical with the Curtis Islands of D'Urville, described by him as two rocks of moderate height, separated by a channel 400 yards broad, in latitude 30° 36' S., longitude 179° 14' W. Blunt's chart shows the Curtis Islands 30 miles to the eastward of D'Urville's position.
1308	Macauley Rocks.....	30 28 00 S.	177 47 00 W.				
1309	Reef.....	30 25 00 S.	179 15 00 W.			Arrowsmith's chart.....	This reef, said to have been discovered in 1811, is doubtful. Findlay's Directory makes no mention of it; Blunt's chart shows it.
1310	Rosaretta Shoal.....	30 25 00 S.	179 08 00 E.			{ Naut. Mag., 1855, p. 355..... Findlay, 1st edition, p. 837..... Wilkes' Narr., III, p. 5.....	{ The Rosaretta Reef, named after the ship of that name which was lost upon it, in 1807, is said to be very dangerous, composed of hard, coarse sand and coral, and was at first placed in 30° 10' S., 173° 45' E. This position is probably the one which was searched for unsuccessfully by the U. S. Exploring Expedition. Subsequently other dangers (of which that in 30° 25' S. and 179° 08' or 179° 15' E. was said to be the easternmost) were reported, and thought to be the Rosaretta Reef. There Capt. Denham, the British surveyor, dropped the lead, to the depth of
	Do.....	30 10 00 S.	179 15 00 E. 173 45 00 E.				

930 fathoms, without reaching bottom, and searched within a margin of 30 miles of latitude and 60 miles of longitude, but could not find anything. On Blunt's chart the Rosaretta Reef is not shown. The British Admiralty chart places it in eastern longitude. That a shoal exists somewhere about this region is very probable.

Captain Denham could not detect the existence of this shoal throughout a circle of 25 miles in diameter around the reported position. Blunt's chart shows it.

There is no other authority known for this reef, and it is not laid down on charts.

There is no other authority for this island; not on charts.

A group of 5 islands is shown near the reported position on Blunt's chart; on the British Admiralty chart it is placed, with a (?), in 110° 30' W.

Not shown on charts. There is a group of numerous islands, called Mitchell Group, recorded in 31° 20' S., 129° 30' W.

The Honolulu papers published the following important report of a whaling-master: "Having obtained accurate information of three dangerous rocks in juxtaposition with the Curtis Islands, in the South Pacific, I deem it my duty to publish it. The first was discovered in latitude 31° 17' S., longitude 179° W., bearing N. N. W. from the French Rock, 10 miles distant; it is just awash, and breaks high in boisterous weather. The second lies in 31° 14' S., 178° 08' W., bears E. N. E. from the French Rock, about 45 miles distant, and 12 feet of water is said to be on it, but no breakers were discovered. The third was found to be in latitude 31° 28' S., longitude 178° E., bearing west by the French Rock, 133 miles distant from it. Heavy breakers are discerned when the surface is roughened by the wind." The French Rock alluded to above is the L'Esperance Rock of D'Entrecasteaux, described as high and of small extent, to the south of the Kermadec Group, determined by him to lie in 31° 27' 30" S., 178° 55' W., (corrected, it appears, to 179° 05' W.,) but, according to Raper's Tables, in 31° 23' S., 178° 45' W.; and by another authority, (Captain Sprague, of the ship Mercator,) in 31° 28' S., 177° 53' W. D'Entrecasteaux's original position seems to be that upon which the positions opposite of the three reported rocks is based. The first of the three rocks reported by the whaler is not new; it is the Havre Rock, reported by Capt. Rule, of Nantucket, to lie about 4 leagues N. W. of L'Esperance Rock, and shown on most charts. The two others, however, appear to be unknown to all charts and directories.

1311	Lady Nelson Shoal...	30 18 00 S.	161 06 00 E.	.....	Ship Lady Nelson.....	
1312	Reef.....	30 48 00 S.	161 17 00 W.	.....	San Francisco Herald.....	
1313	Island.....	31 00 00 S.	155 00 00 W.	.....	Whaler report.....	
1314	Group of Islands.....	31 06 00 S.	112 24 00 W.	.....	China Mail	
1315	Group of Islands.....	31 06 00 S.	127 24 00 W.	.....	Whaler report.....	
1316	Rock.....	31 17 00 S.	179 00 00 W.	}.....	{ Honolulu Advocate and Friend, November, 1844. Findlay's S. Pac. Direct'y, p. 406.	
1317	Do.....	31 14 00 S.	178 08 00 W.			
1318	Do.....	31 28 00 S.	178 00 00 E.			

List of reported dangers to navigation in the Pacific Ocean—Continued.

o.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1319	Island.....	o 1 "	o 1 "	o 1 "	o 1 "	Whaler report..... Do..... Naut. Mag., 1856, p. 262.	{ The first report most probably differs from the second only through a typographical error giving west for east longitude. The island is not represented in either place on charts. The last position in eastern longitude was searched unsuccessfully by Capt. Fox, of the ship Mary Catherine. Captains of whaleships also informed Capt. Fox that no island existed there.
1320	Do.....	31 19 00 S.	160 42 00 W.	.....	.....		
1320	Do.....	31 19 00 S.	160 42 00 E.	.....	.....		
	Do.....	31 21 00 S.	160 45 00 E.	.....	.....	Naut. Mag., 1855, p. 355.	Captain Denham (H. B. M. Navy) has traversed a space about the reported position, embraced by 30 miles of latitude and 90 miles of longitude, so closely as to satisfy himself that this reef does not exist within this space. He could not reach bottom with 850 fathoms line.
1321	Reef.....	31 27 00 S.	178 00 00 E.	.....	.....		
1322	Island.....	31 40 00 S.	73 25 00 W.	.....	.....	Capt. Fischer, of ship Tubalcain... (Naut. Mag., 1860, p. 555.)	Captain Fischer was astonished at daylight of a fair morning by the discovery, 15 or 20 miles to the eastward of his ship, of an island, 15 miles long north and south, consisting of a white mass, one part 200 to 250 feet high; on its northern side he remarked a very peculiar peak, resembling a Spanish cap, turned to the southward. He kept it in sight until 5 p. m., and found at 3 p. m. the water much discolored.
1323	Reef.....	31 40 00 S.	154 28 00 E.	.....	.....	Capt. Houghton, of the brig North Star.	Captain Houghton discovered a reef, with 8 or 10 feet water over it, breaking heavily, and extending three-quarters of a mile from S. E. to N. W. It is not shown on charts.
1324	Curphy Bank.....	31 48 30 S.	152 48 00 E.	.....	.....	Comdr. Sidney, H. B. M. Navy... (Merc. Mar. Mag., 1865, p. 317.)	The sea seldom breaks on this bank. It lies N. N. E. $\frac{1}{2}$ E., distant 3 miles from Crawdy Head, and has 5 fathoms water over its shoalest part, with 13 fathoms inside.
1325	Foster Tyans Shoal...	31 56 00 S.	160 00 00 E.	.....	.....	China Mail	No shoal is laid down there on charts. It would be about 30 miles E. S. E. of Ball's Pyramid, to the southward of Lord Howe's Island.
1326	Rock, coast of Chili...	32 22 00 S.	71 31 00 W.	.....	.....	Capt. Hollway, of the mail steamer Bogota. (Merc. Mar. Mag., 1866, p. 123.)	Captain Hollway reports a sunken rock, on which the sea breaks only occasionally, lying 2 miles W. S. W. of Cruz de la Balena Point, about 42 miles northward of Valparaíso. (Var. 16° E. in 1864.)

1327	Shoal.....	32 28 45 S.	152 33 45 E.	.....	.....	Capt. Sydney, H. B. M. Navy..... (Merc. Mar. Mag., 1862, p. 314.)	Captain Sydney reports a shoal directly in the track of vessels bound inside the Seal Rocks, southward of Sugar Loaf Point and N. E. of Port Stephens, named Edith Breakers, with 25 feet over it at low water, and 18 to 20 fathoms all around. From the shoal White Pile, on the summit of Sugar Loaf Point, bears N. N. E. $\frac{1}{2}$ E., $2\frac{3}{4}$ miles distant; the outer green point of Trechong Head N. by E. $\frac{1}{4}$ E., $1\frac{1}{2}$ mile distant; and the large Seal Rock N. E. by E. $\frac{1}{4}$ E., $2\frac{1}{2}$ miles distant. (Variation $10^{\circ} 10'$ E. in 1862.) Only very recent charts show this danger.
1328	Sunken Rock near Valparaiso.	33 20 00 S.	71 50 00 W.	.....	.....	Naut. Mag., 1847, p. 282.....	South of Curamilla Point about 8 leagues, and from 4 to 5 miles off White Point, a sunken rock is said to exist. Capt. Geo. Peacock thinks its existence very doubtful, but nevertheless advises masters not to come in with the land to the southward of the parallel of $33^{\circ} 15'$ S. in the summer, nor 33° S. during the winter months, (June to August.) The reported danger is not shown on charts.
1329	Mas-à-Fuero Island.. Do..... Do..... Do.....	33 49 00 S. 33 48 30 S. 33 49 00 S. 33 45 00 S.	80 56 30 W. 80 51 10 W. 80 54 00 W. 80 54 00 W.	.....	.....	Master Thompson, of H. B. M. ship Talbott. Admiral Du Petit Thouars..... Raper's Tables..... Bowditch's Tables..... (Findlay's S. Pac. Dir'y, p. XLIV and 381; Naut. Mag., 1848, p. 419.)	(The island of Mas-à-Fuero is represented on charts differing in position. Mr. Thompson has carried the longitude in 4 days from it to Valparaiso, and his establishment would therefore be the most correct. Findlay's Directory (2d edition) adopts in the tables Du Petit Thouars's, and in the text Mr. Thompson's position. Blunt's chart shows the island in $80^{\circ} 50'$ W. and $33^{\circ} 39'$ S.
1330	Pollock's Reef.....	34 25 00 S.	123 20 00 E.	.....	.....	Capt. Pollock, of the bark Merope.	Captain Pollock, in 1831, discovered a dangerous reef, 8 or 10 miles long east and west, 100 yards broad, with 2 feet water upon it. The reported position is its west extremity, which bears S. $\frac{1}{4}$ W. from the southeast terminus of the Recherché Archipelago. The British Admiralty chart of the Pacific Ocean shows the reef.
1331	Shoal.....	35 00 00 S.	155 00 00 W.	.....	.....	Whaler report.....	No danger is shown there on charts.
1332	Bank.....	35 29 00 S.	136 08 00 E.	.....	.....	Corrections to Raper's Tables....	A bank has been reported 7 miles south of Neptune Island, extending northwest and southeast 3 miles, with 3 fathoms over it. It requires verification.
1333	Rock.....	36 26 20 S.	174 55 40 E.	.....	.....	New York Herald, June 2, 1866..	Captain Richards, hydrographer to the British Admiralty, publishes an account of the discovery of a rock having 9 feet water over it at low water, with 5 to 10 fathoms close to, in the passage between the Flat Rock and Kawai Island, in the Hauraki Gulf, Northern New Zealand. The rock lies 4 cables from the shore of Kawai, with the southeast point of that island bearing S. by W. $\frac{3}{4}$ W., Flat Rock E. $\frac{1}{4}$ S., Tiritiri Light-house S. by E. $\frac{1}{2}$ E., and Takatan Point N. W. by N. Variation $14^{\circ} 25'$ E. in 1866.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1334	Breakfast Rock.....	36 36 30 S.	73 08 15 W.	0 1 "	0 1 "	Report of Comdr. Shirley, U. S. ship Suwanee, to the Bureau of Navigation, Washington, D. C.	Captain Shirley found the Breakfast Rock laid down erroneously on the chart of the British Admiralty of the coast of Chili, (No. 1256.) The true position, he remarks, may be found by reference to the harbor chart of Concepcion Bay, by the same authority, (No. 1319.) The last edition of the former chart (corrected to July, 1865) exhibits the rock in the same relative position as that given by the harbor chart, but the longitude of the latter has been moved 3 minutes westward.
1335	Yellow Water Reef..	36 40 00 S.	76 18 00 W.	.....	.....	Old reports.....	The reef shown in the reported position on Blunt's chart of the Pacific was not seen by the U. S. ship St. Mary's while passing there. The British Admiralty chart does not show the reef.
1336	Island and Reef.....	37 00 00 S.	151 13 00 W.	.....	.....	San Francisco Herald.....	{ A reef, with the name of Maria Theresa, said to be dangerous, is shown by Blunt's chart in the first, and by the British Admiralty's chart in the second position, differing 100 miles in latitude.
1337	Maria Theresa Reef..	35 20 00 S.	151 13 00 W.	.....	.....	Other reports..... (Findlay's S. Pac. Direct'y, p. 386.)	
1338	Renwick Rock, near the coast of Chili.	37 00 00 S.	74 44 30 W.	.....	.....	Capt. Bell, of the ship John Renwick. (Naut. Mag., 1349, p. 156.)	Captain Bell reports a rock near the coast of Chili, in the position opposite, on which his vessel struck and became a wreck. He says that he determined its situation by the intersection of bearings to several points very carefully; but, unfortunately, he does not give these bearings. The editor of the Nautical Magazine does not believe in the existence of the rock. It is not known whether searches have been made for it; but the rock could have hardly escaped the numerous vessels passing there constantly. It is not marked on charts.
1339	Hall Rock, coast of Chili.	37 12 45 S.	73 42 00 W.	.....	.....	Capt. Hall, of the ship Cloda..... (Merc. Mar. Mag., 1860, p. 69.)	Captain Hall observed the sea breaking very heavily on a sunken rock, hitherto unknown; it bears N. W. by compass from the outer rock on the extreme point of Rumena Head, and is about 2½ miles off shore; it is not seen except at low water, and with a heavy swell on. The British Admiralty chart of the coast of Chili shows the rock as "a report." Findlay remarks, that Capt. Beechey has recommended Cape Rumena as a land fall in going to Concepcion; but that this, and several other rocks lately discovered near it, would rather make it a place to be avoided.

1339	Rock off Cape Jaffa..	37 30 00 S.	139 40 00 E.	.....	.....	Capt. Franklyn, of the Australian mail steamer Sydney. (Naut. Mag., 1853, p. 500.)	Capt. Franklyn was informed by the master of a coasting vessel of the existence of a dangerous reef 18 or 20 miles west of Cape Jaffa, directly in the track of vessels running down the coast, and subsequently he learned that one ship had been totally lost on it and another damaged. This reef is not shown on the British Admiralty chart of the south coast of Australia, corrected to 1861.
1340	Lightning Rock.....	38 17 00 S.	144 38 00 E.	38 17 00 S.	144 38 00 E.	Mr. Ferguson, harbor-master at Port St. Philipp. (Naut. Mag., 1863, p. 163; Findlay's S. Pac. Direct'y, p. 678.)	Two patches of sunken rocks have been found outside of Point Nepean, in the entrance of St. Philipp. They are nearly 170 feet apart, about N. W. by W. and S. E. by E. from each other, and a line passing through the tidal flag-staff and the Point Lonsdale red-ball beacon leads over the middle of both. The eastern patch is about 15 fathoms in extent, with only 29 feet water over its shoalest part, and 7 and 8 fathoms close to. It is eight-tenths of a mile S. W. by W. from the red beacon on Nepean Dry Rock, and about one and two-fifth miles S. E. by E. from Point Lonsdale flag-staff. The western patch is about one-third larger than the eastern, and is the most dangerous, being nearer the fairway, and having only 16 feet water on the shoalest rock, which rises abruptly in 8 fathoms. At about 20 fathoms to the southward of it there is another rock, with only 24 feet over it. The western patch lies about nine-tenths of a mile W. S. W. from the red beacon on Nepean Dry Rock, and about one and one-tenth mile from the Lonsdale flag-staff. To avoid these dangers, vessels going in or out should endeavor to keep to the westward of both. Keep the new light-house just open to the westward of the red obelisk on Shortland Bluff until you open Point Lonsdale telegraph station well out to the northward of the tidal flag-staff when going in, and well out to the southward of the tidal flag-staff when going out. Bearings are magnetic, and depths at low water spring tides.
1341	Rock on the coast of New Zealand.	38 35 00 S.	178 20 00 E.	.....	.....	Capt. Anderson, of the steamer Star of the South. (Naut. Mag., 1865, p. 380.)	The ship struck on a rock, the Gable End Foreland bearing N. N. W., distant $3\frac{1}{2}$ miles, and Wangarei Islet W. S. W. about 3 miles. These bearings and distances do not agree exactly. They would place the shoal approximately in the position opposite. The danger is not laid down on charts.
1342	Rock in Bass Straits..	39 28 30 S.	146 43 00 E.	39 28 30 S.	146 43 00 E.	Ship Clarendon..... (Merc. Mar. Mag., 1858, p. 122; Naut. Mag., 1858, p. 331.)	The Clarendon struck upon a rock at half tide, with apparently only 10 feet of water over it; it proved to be round, and about 40 or 50 feet in circumference. The highest part of Curtis Island bore W. by S. when the ship struck, and the Inner Sugar Loaf S. W. by S., 3 miles distant. The British Admiralty chart of Bass Straits (1864) has the rock laid down.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1343	Rock in Bass Straits, (about)	0° 39' 30" S.	0° 147' 30" 00 E.	0° 1"	0° 1"	Capt. Newby, of the ship Mary... (Naut. Mag., 1846, p. 49.)	This ship was lost upon a sunken rock, N. W. of Wright Rock and S. E. of the Kent Group, with frightful loss of life. No danger is shown on this line in the British Admiralty chart of Bass Straits of 1864.
1344	Islands.....(about)	39° 53' 00" S.	144° 50' 00" E.	.....	.....	French corvette Geograph..... (Naut. Mag., 1859, p. 466.)	Three small islands were seen 13 leagues east of Sea Elephant Bay. They are not shown on charts.
1345	Rock in Cook Straits.	41° 02' 45" S.	174° 26' 20" E.	.....	.....	Capt. Home, H. B. M. Navy..... (Naut. Mag., 1847, p. 323.)	The ship commanded by Capt. Home passed in Cook Straits close to a sunken rock, nearly awash, the White Rocks bearing then S. W. by S., and the outer island of the Brothers S. E. by S. Referring to Cook's Narrative (I, p. 105 of second voyage) the following is found: "In towing the ship we discovered a rock which we did not see in the former voyage. It lies S. by E. $\frac{1}{2}$ E., 4 miles distant from the outermost of the Two Brothers, and in a line with the White Rocks on with the middle of Long Island; it is just even with the surface of the sea, and has deep water all around it." These accounts evidently refer to one rock. The British Admiralty chart of Cook Straits, corrected to 1863, places the danger in the position opposite, but it appears not to be well established. The above bearings would bring it one mile nearer to the White Rocks.
1346	Rock on the east coast of New Zealand.	43° 39' 00" S.	173° 05' 00" E.	.....	.....	Ship Catharine..... (Merc. Mar. Mag., 1864, p. 93.)	The Catharine struck on what was supposed to be a pinnacle rock, lying off the northeast extremity of Long Lookout Point, Banks' Peninsula, three-quarters of a mile distant from the point. The rock is not laid down on charts.
1347	Chatham Islands.....	44° 00' 00" S.	176° 40' 00" W.	.....	.....	Capt. C. W. Hope, of H. B. M. ship Brisk. (Merc. Mar. Mag., 1866, pp. 7—11.)	The following remarks upon the Chatham Islands, by Capt. C. W. Hope, of H. B. M. steamer Brisk, are copied here in full, as they correct the very imperfect and erroneous charts of this group: "On making the Great Chatham Island from the westward, Mount Maunganni is very conspicuous, being a high rugged hill, with a broken, irregular outline, appearing to form the north extreme of land; but, on approaching nearer, Patterson Point, a long, low projection, off which there are dangerous reefs, extending a mile or more, will

be recognized. Mount Dieffenbach will be seen to the right of Maunganni, which is a sharp-pointed, pyramidal hill, said to be the highest on the island, but Maunganni looks higher. There are other peaks resembling Dieffenbach, but lower.

"The Brisk approached Alison Point on an east course, and then passed through Cuba channel into Petre Bay. The coast from Alison Point to Somes Point appears fringed with rocks, and should not be approached nearer than a mile. The sea breaking on West Reef may be seen 8 or 10 miles off from the mast-head, and on closing nearer, patches of the reef are visible above water. The reef seems to be correctly placed on the chart, but appears to extend somewhat further in a N. W. direction from the dry part than is there laid down. There is, however, a channel at least 3 miles wide between the reef and Somes Point, through which, steaming at half speed, no bottom could be obtained with 10 fathoms, and there were no indications of any other dangers.

"The only anchorages to be recommended in Petre Bay are Wangaroa or Port Hutt and Port Waitangi, the other bays on the north-side being exposed to south and S. W. winds. On steaming along the southern shore of Petre Bay nothing was seen of the Heaphy Shoal, and it was stated that it had no existence. There was a heavy swell running, but no appearance of a break anywhere off this shore, except upon the Jenny Reef, which appears to be rather less in extent than the chart shows. Port Wangaroa is sheltered from all winds, but is very confined, and as, with strong west and S. W. winds, there is a heavy sea at the entrance, a vessel should anchor as far in as possible. The entrance may be easily recognized by the sketch on the chart. With the nib or hummock on Mount Iwa Kawa open to the eastward of Maunganni, as shown in the sketch, the harbor is open, and the white sandy beach at its head will be seen. There are likewise sandy beaches at the head of the two bays to the eastward of Wangaroa; therefore care must be taken not to mistake between them. The sea breaking on the rocks on either side of the entrance to Wangaroa marks the dangers, and it is only necessary to keep midway between, and steer straight in on a N. W. by W. course. A patch of floating kelp stretches partly across the entrance from Napper Reef, but there is deep water where it lies, and the Brisk passed through it. The reef off Gordon Point must be avoided, but the outer edge of the kelp there marks the deep water. The Brisk anchored inside the line from Gordon Point to Evans' Point, in 5 fathoms, coarse sand and shells, with the centre of the little cove behind Evans' Point bearing N. E. A large vessel should moor, if intending to stay any time, as there is scarcely room at single anchor to swing all around, unless the anchor were dropped exactly in the centre of the

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
		0 1 "	0 1 "	0 1 "	0 1 "		harbor. There is a stream of excellent water at the north-west corner of the harbor, but no fire-wood or supplies of any kind are to be had here, the country for miles round being bleak, open moorland, intersected by small lakes and swamps. The only habitations are two Maori huts on the west side, at Howard Bay. "Port Waitangi is the principal place in the Chatham Islands. The resident magistrate lives here, as also several other Europeans. Fresh meat, poultry, and vegetables may be obtained in abundance, and very cheap; the potatoes, for which these islands are celebrated, are very fine, and at times a large quantity is exported to New Zealand and Australia. The land in the neighborhood is excellent; wheat is cultivated, and answers well, and all kinds of English fruits and vegetables come to perfection. The lakes abound with wild ducks, and there are also curlew, plover, and pigeons, with abundance of wild pigs all over the island. The anchorage at Port Waitangi is not a safe one for large vessels during westerly gales. Vessels drawing not more than 12 or 13 feet may ride out S. W. gales, by anchoring close in, with Hanson Point bearing S. W. or S. W. by W.; they will then be in a measure sheltered from the heavy sea, but will experience a rolling swell that will try their cables. With a gale from N. W. this is decidedly a dangerous anchorage. The Brisk experienced a heavy S. W. gale while at anchor here in May, 1865, with Clatchie Point bearing W. S. W., in 6 fathoms, fine black sand. The gale lasted 48 hours; one cable parted, and the vessel was in a very critical position, a high breaking sea running, and a strong offset from the shore keeping the ship at times broadside to wind and sea. An American whaler lying further in also parted a cable, and the crew left her, expecting to be wrecked, but she rode it out safely, as did also a schooner lying close under Hanson Point. A shoal, having 5 fathoms on it, is said to lie 1½ mile to the northward of the anchorage, but the exact spot is uncertain. It is, however, known to the natives, who go there to fish. "The coast from Durham Point to Evéque Point is high, bold, and apparently clear of danger. Evéque

Point has close behind it a remarkable hill, with a cleft rock on the top, exactly like a bishop's mitre, from whence the name is given.

"The Brisk passed about $1\frac{1}{2}$ mile to the northward of the Sentry Reef, which appears to be correctly placed, but is smaller in extent than is laid down on the chart. It is entirely under water, but the sea breaks violently upon it. There is said to be a rock some little distance from the shore, 2 or 3 miles westward of Cape Fournier; but it is out of the ordinary track of vessels passing through Pitt Strait, and nothing was seen of it. The residents stated that, with the exception of this rock and Sentry Reef, Pitt Strait is entirely free from danger, the rocks lying off the west and southwest sides of Pitt Island being so high and steep as to be quite undeserving that name.

"Pitt Island and its surrounding islets and rocks are most incorrectly laid down on the chart; in fact, with the exception of Sentry Reef, the entire chart south of Capes Evéque and Fournier is erroneous. The north end of Pitt Island is placed 5 miles too much to the northward, and the shape and outline of its shores are altogether different.

"The north end of the island forms a bay, about $1\frac{1}{2}$ mile wide and half a mile deep, where there is good anchorage, with all southerly winds. From the centre of this bay Evéque Point bore W. $\frac{3}{4}$ N., and Cape Fournier N. W. by N.; and assuming that these two capes are correctly laid down on the chart, this point in the bay would be in latitude $44^{\circ} 13' S.$, longitude $176^{\circ} 29' W.$ This latitude is at all events nearly correct, as it agreed with observations taken at noon. Mr. Hunt, an Englishman, who has resided for 25 years on the island, lives on this bay. He farms a great portion of the island, and gains his livelihood by supplying whalers with fresh provisions of all sorts. He also acts as pilot to them, and it is chiefly from him that Capt. Hope derived whatever information did not come under his own notice. On the east side of Pitt Island there is an anchorage much frequented by whalers, where vessels may ride well sheltered from westerly gales; and on the west side there is good anchorage, with northerly and easterly gales, in a bay behind a very high and precipitous island, called by the residents the "Castle." This island, which is probably that named in the chart The Fort, occupies more nearly the position of The Outposts, as there laid down. This latter, a very remarkable, sharp-pointed, serrated rock, is further to the S. W.; and the extreme rock of this group, called Sail Rock, from its extraordinary resemblance to a boat with a gigantic lug sail, lies considerably to the S. W. of its position on the chart. This group of rocks is very remarkable: the "Castle" is flat-topped, with perpendicular, precipitous sides, 300 or 400 feet high. The Brisk was too far off to judge of the positions of the rocks off the south end of the island.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
		0 1 "	0 1 "	0 1 "	0 1 "		Abundance of fresh meat, potatoes, and vegetables may be obtained at Pitt Island, as also poultry, milk, and butter. This island is thickly wooded; the soil very fertile, and, as at the Great Island, all kinds of European fruits, &c., grow and thrive. Wheat is also cultivated, but not in quantity sufficient for exportation. On leaving the north end of Pitt Island the Brisk steered N. N. E., which took her 4 or 5 miles to the northward of Bertier Rock, a flat-topped islet, about 150 feet high. This rock is laid down some 6 miles too far to the N. W. of its proper position, and it lies on the parallel of 44° S., and hence obtained the local name of the "The Forty-Fours." Round Island is placed about 4 miles too far to the N. W. The existence of the three rocks laid down in latitude 44° 20' S., longitude 176° 03' W., is very doubtful, and the Star Quay Reef is said to occupy quite a different position. "Bearings magnetic. Variation 15° E. in 1865."
1348	Bank on the east coast of New Zealand.	44 50 00 S. to 45 06 00 S.	174 30 00 E. to 174 18 00 E.	.....	.....	Ann. Hydr., 1864, I, p. 234.....	The Winslow (Capt. Labaste) met unexpectedly sea tang, and sounded for 12 hours in 64 fathoms. The bank, which extends northeast and southwest 12 miles, is not laid down on charts.
1349	Rock on the west coast of New Zealand.	46 01 10 S.	166 35 00 E.	.....	.....	New York Herald, June 3, 1866..	Captain Richards, the hydrographer to the British Admiralty, announces the discovery of a rock in Chalky Inlet, on the west coast of Middle New Zealand. It is a pinnacle rock, with 5 feet on it at low water, and 5 to 9 fathoms close around. It lies southward of the rock marked on the chart, off the south point of Great Island.
1350	Bruce Rocks.....	47 07 35 S.	168 21 35 E.	.....	.....	Capt. Meiklejohn, of the ship Bruce. (Merc. Mar. Mag., 1861, p. 285; Naut. Mag., 1861, p. 567.)	Captain Meiklejohn discovered two low rocks, from 3 to 6 feet high, lying close together, on which the sea broke violently. They lie E. by N. $\frac{1}{2}$ N., seven and one-tenth miles from Owen Island, off Lord's River, five and one-tenth miles E. by N. $\frac{1}{4}$ N. from the extreme of Break Sea Isles, 3 $\frac{1}{4}$ miles E. by S. $\frac{3}{4}$ S. from Wreck Reef, off Port Adventure, and 7 $\frac{1}{4}$ miles S. E. $\frac{1}{4}$ E. from East Head, north of Port Adventure. They are laid down on charts.

Captain Williams reports to have run aground and damaged his vessel upon a reef of rocks, 9 miles off Spiring Bay, which reef had been shown on charts of old dates, but had subsequently been erased from them, because the British surveying vessels (Beagle and others) could not find it. Capt. Williams adds, that he had gone ~~several days~~ ^{several times} ground four different times, but never had found anything resembling a reef before.

Commander Shirley reported to the Bureau of Navigation, on June 7, 1865, as follows: "There is a group of rocks (in 49° 12', nearly) 2 miles south of the entrance of Eden Harbor. They are mentioned in the South American Pilot, p. 232, but not with that degree of prominence they deserve, for they lie just in the track of vessels making for the harbor, and are extremely dangerous. I had to make the harbor at night—a very dark one—and I came very near running on these rocks. I passed between these rocks and the west shore, as also did Capt. Bradbury, in the mail steamer Colorado. Although he had daylight, he came near running on the rocks." Lieut. Day made a survey of this danger when passing through Messier Channel, and gives this description: "It consists of three rocks a little to the westward of the midchannel, and about 2 miles to the southward and eastward of the entrance to Eden Harbor. At high tide the largest of the rocks is just awash; the others are entirely submerged. There is a scanty growth of kelp on them, but not sufficient to be well perceived, except at low water. Within a ship's length on all sides there was no bottom found at 25 fathoms, and within two boats' lengths the soundings were 7 and 8 fathoms. The following magnetic bearings were taken from the largest rock at low water: a line drawn tangent to the land at the entrance of Eden Harbor, on the left, N. 51° W.; southern point of island, at entrance of same harbor, on the right, N. 42° 30' W.; western point of land at Level Bay, N. 19° 10' W.; extreme point of Rocklets, at entrance of small bay on the east side, to southward of Eden Harbor, N. 43° E.; the most northerly of the group of Rocklets in Indian Reach, 7 miles to southward of Eden Harbor, S. 24° E.; point directly opposite to the just-mentioned Rocklet, on the west shore, S. 19° E. The rocks were placed correctly on the British Admiralty chart, subsequent to Capt. Shirley's report.

It appears that Krusenstern, perhaps by mistake, placed these isolated islands in 179° 40' E., and that Raper and Horsburgh, even in their latest editions, as well as late editions of Arrowsmith's and Norrie's charts, have copied Krusenstern, while the navigators quoted opposite (who visited them all) place them one degree further west, complaining of the discrepancy between their observa-

Capt. Williams, of the ship Sirius.
(Naut. Mag., 1849, p. 433.)

Comdr. Shirley, of the U. S. ship
Suwanee, and Lieut. Day, of
the U. S. ship Tuscarora.
(Naut. Mag., 1865, p. 614.)

1351 Sirius Rock, coast of
Patagonia.

1352 Rocks off Eden Har-
bor.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1353	Antipodes Islands..... Do..... Do..... Do..... Do..... Do..... Do.....	0 1 " 49 32 00 S. 49 40 00 S. 49 45 00 S.	0 1 " 178 42 00 E. 179 40 00 E. 178 40 00 E. 178 42 00 E. 178 42 00 E. 178 46 00 E. 178 43 00 E. 178 55 00 E.	0 1 " 49 46 00 S.	0 1 " 178 44 00 E.	(Lieut. Wilson, H.B.M. Navy, 1840 Admiral Krusenstern..... Capt. Darley, of the ship Eve- retta, 1858. Capt. Stevenson, of the ship Maidstone, 1859. Capt. Scott, of ship Xanthe, 1864. Capt. Scott, by lunars..... Capt. Barwood, of ship Fugitive. Capt. Parrit, of ship Holmsdale.. (Naut. Mag., 1840, p. 145; 1865, p. 385; 1866, p. 47; and 1859, p. 332; Merc. Mar. Mag., 1865, p. 251; Findlay's South Pacific Direct'y, p. 247.)	tions and the charts. Blunt's chart of the Pacific places the islands in the places assigned to them by the latest authorities; Bowditch's Tables show them in 179° 02' E. According to Capt. Darley, the main island is high and barren, about 15 miles in circumference, with 6 or 7 smaller islets around it, a short distance off. Capt. Ste- venson says there are four islands, with clear channels between them, as near as he could judge from a distance, and that they lie nearly north and south, over a space of about 4½ miles—the highest part about 600 feet above the sea. Capt. Parritt reports the main island as 600 or 900 feet high, 4 or 5 miles long, and rugged, with a small island on the northeast side, and a remarkably high and large pillar-shaped rock off the west end. He expressly states that his two chronometers had been rated 12 days and tested 3 days previous to making the Antipodes Island, and that his latitude had been found from a me- ridian altitude, obtained on the same day.
1354	Rocks in Magellan Straits.	50 34 00 S.	74 46 00 W.	.....	.....	H. B. M. ship Virago..... (Naut. Mag., 1853, p. 251.)	The Virago discovered a cluster of rocks S. W. ½ W., 2 miles from Innocent Island. They are laid down on late British Admiralty charts of the Straits.
1355	Reef in Magellan St's.	50 47 00 S.	75 09 00 W.	.....	.....	H. B. M. ship Virago..... (Naut. Mag., 1853, p. 251.)	An extensive reef, reported by the Virago, to the southwest- ward of the southeast point of Duke of York Island, is indicated on the British Admiralty chart, but apparently has not been satisfactorily surveyed.
1356	Rock in Magellan St's.	50 47 00 S.	75 20 00 W.	.....	.....	H. B. M. ship Virago..... (Naut. Mag., 1853, p. 251.)	A rock above water, with heavy breakers all around it, bearing nearly S. E. from Cape St. Jago, (the southwest extremity of the Duke of York Island,) distant from it 4 or 5 miles. It does not appear to have been placed on charts.
1357	Do.....	50 48 30 S.	74 14 00 W.	.....	.....	Comdr. Shirley, of the U. S. ship Suwanee, in a report to the Bureau of Navigation, dated June 7, 1865. (Naut. Mag., 1865, p. 614.)	A rock was seen in Smyth Channel, near Cape Charles, in the position opposite, without kelp on it, but the ripple from the paddle made the water break. Capt. Darley of the American ship Colorado, confirms its existence, and states that it may have one foot of water over it. To avoid it, keep well on the eastern shore, after passing Cape Charles, till the Quia Channel is open. This rock is not shown on late charts.

1358	Shoal in the Indian Ocean.	50 50 00 S.	77 30 00 E.			Capt. Gauntlet, of the ship Inglis. (Merc. Mar. Mag., 1854, p. 196.)	The Inglis passed over a bank, the water suddenly assuming a muddy appearance. It is not shown on charts.
1359 1360	} Shoal in Puerto Bu- eno Harbor.	{ 50 59 15 S. and 50 59 10 S.	74 09 30 W.	}		Lieut. Ebnetter, French ship Diamant. (Ann. Hydr., XXVIII, p. 87.)	{ The rock on which the ship Cocyte struck lies 1 cable N. W. of the southern of the two islands forming the inner harbor. There is a second rock, of 28 fathoms circumference, about 55 fathoms S. E. of the northern island. Neither danger is shown on the late British Admiralty charts.
1361			74 09 40 W.				
1361	Shoal in Magellan Straits.	50 59 10 S.	74 11 15 W.			H. B. M. ship Hecate. (Merc. Mar. Mag., 1862, p. 189.)	A rocky shoal, having 11 feet water on it, marked by kelp, lies in the channel northward of the islet at the entrance to Puerto Bueno, about 7 miles southward of the entrance to Peel Inlet. It is shown on late charts.
1362	Submarine Volcano, or Shoal.	51 44 00 S.	160 49 00 E.			Capt. Harris, of the ship Orient. (Merc. Mar. Mag., 1866, p. 91.)	On November 17, 1865, at 7½ a. m., with a moderate wind from N. N. W., and a clear sky, the ship commenced trembling violently, as if she was passing over a rough bottom in shallow water, and at the same time the bells began to ring. The violent trembling lasted 2 or 3 minutes, with nothing visible; the pump well was examined, but no water was found; soundings were tried with the deep-sea lead, but no bottom reached. The conclusion arrived at by all on board was that the ship had experienced the effects of a submarine volcano.
1363	Rock.....	51 51 00 S.	164 42 00 W.			China Mail	Shown as questionable on the British Admiralty chart of the Pacific Ocean, but not laid down on Blunt's chart.
1364	Rocks in Magellan Straits.	52 20 00 S.	73 38 00 W.			H. B. M. ship Vixen. (Naut. Mag., 1857, p. 564.)	A shoal in Smyth Channel, at the northwest end of Magellan Straits, was struck upon by the Vixen when steering to the northward and attempting to take the passage between the east side of Long Island and King William's Land. It extends across the passage, from the shore under Rosehill to within half a cable's length of the beach on Long Island; has only 6 feet water on it, and the depths decrease suddenly from 25 to 4½ fathoms, close to. The bearings from the vessel when aground were: the southeast extremity of Long Island S. ¾ E., and the highest point of the island W. by S. This extensive shoal, with a patch of rocks immediately in the fairway, (steep to, with only 9 feet water on them,) renders this passage unnavigable, and vessels should follow the channel to the eastward of the Otter Islands, and then between the Summer Islets and Long Island. The above dangers are shown on late editions of the British Admiralty chart of the straits.
1365	Shoal in Magellan Straits.	52 22 00 S.	68 06 00 W.			An American ship.....	Struck 12 miles off shore, near Cape Virgin. This seems to be a northwesterly extension of the Sarmiento Bank.

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1366	Shoal in Magellan Straits.	52° 28' 00" S.	69° 30' 00" W.	52° 28' 00" S.	69° 30' 00" W.	Mr. Reid, Master, H. B. M. Navy. . . (Naut. Mag., 1861, p. 315.)	While passing through the first narrows from west to east, near low water, and keeping to the south shore, a spit of sand was observed to extend out from the shore, between a quarter and half a mile in a northerly direction, and about 6 miles southwesterly from Point Anegada, to clear which the ship had to be hauled up to the northward; and while passing it no bottom was obtained in 13 fathoms, being about half a mile from it. This spit appears to have been thrown up by the tide, and is not in the way of ships passing through, as long as they do not stand too near the south shore; and from its appearance it would not be discernible at half or full tide—perhaps marked by a ripple—having no kelp on it, and most likely will change its position in winter. On the latest British Admiralty chart the spit is indicated by dotted sand, but evidently no proper survey has fixed its position.
1367	Knoll off Point Barrancas, Straits of Magellan.	52° 32' 30" S.	69° 44' 30" W.	52° 32' 30" S.	69° 44' 30" W.	Mr. Reid, Master, H. B. M. Navy. . . (Naut. Mag., 1861, p. 315.)	A small knoll has grown up since the last survey, about three-quarters of a mile W. by S. $\frac{1}{2}$ S. from Barrancas Point, with kelp on it, about a cable in length. H. B. M. ship Satellite steamed across its west end and along its south side within half a mile, getting not less than 8 fathoms sand and rock, about an hour from low water. In 1857 kelp was seen in the same vicinity, but in 1860 it appeared to have increased, or else, it being then summer, it showed plainer. At present, the knoll is not in the way of ships. It is not indicated on the latest British Admiralty chart, (1863.)
1368	Termagant Shoal.....	52° 35' 30" S.	69° 58' 40" W.	52° 35' 30" S.	69° 58' 40" W.	Capt. Hall, H. B. M. Navy..... (Naut. Mag., 1851, pp. 315 and 319.)	Captain Hall relates: "After passing the first narrows a course was shaped to take the ship at least 2 miles to the northward of the Triton Bank, but on reaching the opposite position soundings were struck in 4 fathoms. As the tide was half ebb at the time, and the rise and fall amounts to 36 feet in this part of the straits, it is evident that some portion of this shoal must be nearly awash at low water spring tides, and, as it lies right in the fairway of vessels passing to the northward of the Triton Bank, constitutes a most serious danger. To avoid it, I should recommend a vessel to keep the north shore aboard, giving the kelp

a berth of about half a mile, until the neighborhood of the point of Nostra Senora de Valle is reached, or to anchor till the flood makes in Possession Bay, and, by starting with the first of the flood, she would reach the neighborhood of the bank at almost high water, when there would be water enough on it for any good-sized ship. Of the two companions of the Termagant, the Grappler following struck soundings in 4½ fathoms; but the Forward, being taken in the tide, was obliged to keep close along the edge of the kelp, the least water she had being 5 fathoms." H. B. M. ship Satellite, (Reed, master commanding,) being sent to establish this danger, could not find it, although searching closely in boats. In the late edition of the British Admiralty chart of the Straits it is marked with the letter A, referring to a side-note. It may be remarked here, that in 1860, on the Triton Bank, a spot was found with as little as 2 feet water over it.

Master Comdg. Reed, H. B. M. Navy, reports a dangerous rock, not marked on any chart, upon which (1857) a Chilean steamer struck, and sunk almost immediately; and likewise, in 1860, a Chilean bark, running in to anchor, was wrecked. Its true position is not exactly known, but is reported to be near the middle of the harbor and about midway between the two outer points forming the harbor, and to have had no kelp on it at the time. In November, 1860, H. B. M. ship Satellite, drawing 20 feet, anchored in Port Mercy for the night, and during her passage into the anchorage the kelp off the southeast end of the Observation Islets and the northwest point of the harbor was found to have extended in a southeasterly direction some distance, in detached patches, through which she had to thread her way in keeping nearest to the northwest shore. But in coming out, she left the two inner kelp patches marked on the chart on her starboard side, passing out between the two outer ones, finding not less than 8 fathoms water between them. This appears to be the best way in and out. In 1863 Capt. Connolly, of H. B. M. ship Sutlej, saw the sea breaking violently on what he thought to be the sunken rock spoken of above, but the weather did not permit an examination. It was about 2 cables' length off Mercy Head. No danger is shown there on the British Admiralty chart.

A shoal, with 11 feet on it, was discovered (1861) to the westward of the islets fronting the anchorage at Port Tamari. It is now shown on late editions of charts.

This rock, discovered (1862) by the Diamond, 2 miles S.S.E. of Cape Tamar, marked hitherto as doubtful on the British Admiralty charts, was seen by the U. S. ship Suwanee. Its existence is therefore confirmed.

1369	Rock in Mercy Harbor. (about)	52 46 00 S.	74 34 30 W.	Report of Commander Shirley, of the U. S. ship Suwanee, to the Bureau of Navigation, Washington, D. C. (Naut. Mag., 1861, p. 313, and 1863, p. 342.)
1370	Plumper Shoal, Str'ts of Magellan. (about)	52 55 00 S.	73 48 00 W.	Ship Plumper. (Merc. Mar. Mag., 1862, p. 189.)
1371	Diamond Rock.	52 57 00 S.	73 48 00 W.	French gunboat Diamond. Report of Comdr. Shirley, U. S. ship Suwanee, to Bureau Navigation, June 7, 1865. (Naut. Mag., 1865, p. 614.)

List of reported dangers to navigation in the Pacific Ocean—Continued.

No.	Name of danger.	Reported.		Probable.		Authority.	Description of danger, and notes.
		Latitude.	Longitude.	Latitude.	Longitude.		
1372	Ortiz Rocks.....	0 1 " 52 32 00 S.	0 1 " 72 31 00 W.	0 1 "	0 1 "	H. B. M. ships Virago and Vixen... (Naut. Mag., 1853, p. 248, and 1854, p. 305.)	Captain King, in his Directory, speaks of a rock not a league to the eastward of Cape Quod, with only 9 feet water on it, but covered with weeds. He remarks, that it is a good distance from the north shore, and is in the fairway working to the westward round the cape. The master of H. B. M. ship Gorgon had only 5 feet water on a rock—probably the same—marked by kelp. He recommends keeping on the southern shore, and says that in going to the eastward, when Borja Bay opens, you may be sure of having passed the rock. H. B. M. ship Figgard, in beating through the reach in 1843, could not detect, with the utmost vigilance, any indication of either a rock or kelp. In 1854 the Vixen, from a boat which was hung by the kelp to the very point of the rock, over which only 3 feet water was found, took the following bearings: Cross on Ortiz Island N. E. $\frac{1}{2}$ E.; centre of the Bluff of El Morion S. $\frac{1}{2}$ W.; a remarkable white patch, low down on the land, in the centre of Butler Bay, and just to the westward of the extreme point of El Morion, S. by W. $\frac{3}{4}$ W. The small island was about its own length open to the eastward of Ortiz Island. To the eastward of this small island there is kelp, extending upwards of a cable's length, over which 3 fathoms water was found. From the cross on Ortiz Island and the rock, distinguished by kelp and tide ripples, bore S. W. $\frac{1}{2}$ W., about three-quarters of a mile distant. The shoal appeared to be of considerable extent, as the bottom was seen at least a cable's length before the shoalest part was hit. The tide runs with such force that the kelp is taken under water, leaving nothing to mark its position but the appearance of a common tide ripple, such as ships constantly pass through in other reaches. Late charts of the straits show the shoal.
1373	Nimrod Islands.....	56 30 00 S.	158 30 00 W.	.....	.....	{ Horsburgh, II, p. 805..... Findlay's S. Pac. Direct'y, p. 238.	{ These islands were reported by Capt. Eilbech, of the ship Nimrod, (1828,) who saw and placed them from a distance. Capt. Briscoe searched for them ineffectually in 1831, perhaps in a wrong latitude; but he also reports indications of land, such as birds, sea-weed, and discoloration of water.

1374	Emerald Islands.....	57 15 00 S.	162 30 00 E.	.....	.....	Wilkes' Narr., II, p. 285.....	This position was passed over by the U. S. Exploring Expedition, without seeing the islands or any indications of land. Lieut. Wilkes believes them not to exist, at least near this vicinity. Blunt's chart of the South Pacific places them in 58° 17' S., 162° 50' E.
1375	Island.....	57 49 00 S.	113 33 00 W.	.....	.....	Capt. Reed, of the ship Red Jacket.	Capt. Reed saw in the reported position an island, 3½ miles long, high, and covered with snow. It is not shown on the British Admiralty chart nor on Blunt's general chart of the Pacific Ocean.
1376	Dougherty Island.....	59 20 00 S.	120 20 00 W.	} 59 21 00 S. }	} 119 07 00 W. }	{ Capt. Dougherty, of the whale-ship J. Stewart. Capt. Keates, of the ship Luisa.. (Merc. Mar. Mag., 1860, p. 58; Findlay's S. Pac. Dir'y, p. 238.)	(Captain Dougherty, in 1841, saw an island near the first position, 5 or 6 miles in length northeast and southwest, with a high, round bluff on the northeast end, and low on the southwest. He passed within a quarter of a mile, going 10 knots. The position, he says, may be out a few miles, by reason of not having had proper observations for several preceding and following days. The corroboration which Mr. Findlay requires before he can believe in the existence of land in this most open space of the great world of waters has been furnished by Capt. Keates, who, in 1859, discovered a round island, about 80 feet high, of dark color, with a large iceberg aground on the northwest side of it. Capt. Keates says that he had good sights, and found his chronometers correct to a quarter of a mile, when sighting Trinidad. The British Admiralty chart of the South Pacific shows the island; Blunt's chart does not show it.
1377	Island.....	59 21 00 S.	119 07 00 W.				

Date		Description		Amount	
1880	Jan 1	Balance		100.00	
1880	Jan 15	Received from A. B.		50.00	
1880	Feb 1	Received from C. D.		25.00	
1880	Mar 1	Received from E. F.		75.00	
1880	Apr 1	Received from G. H.		100.00	
1880	May 1	Received from I. J.		150.00	
1880	Jun 1	Received from K. L.		200.00	
1880	Jul 1	Received from M. N.		250.00	
1880	Aug 1	Received from O. P.		300.00	
1880	Sep 1	Received from Q. R.		350.00	
1880	Oct 1	Received from S. T.		400.00	
1880	Nov 1	Received from U. V.		450.00	
1880	Dec 1	Received from W. X.		500.00	
1880	Total			2000.00	

REPORT
OF
CAPT. WM. REYNOLDS, U. S. N.,
ON THE
PASSAGE OF U. S. STEAMER LACKAWANNA
THROUGH
MAGELLAN STRAITS.

U. S. STEAMER LACKAWANNA, (2d rate,)
Valparaiso, December 17, 1866.

SIR: I submit, herewith, a brief account of the passage of this ship through the Straits of Magellan and the channels leading to the Gulf of Peñas, accompanied by a tracing of King and Fitzroy's accurate chart of Magellan Strait, with our route laid down from courses steered, distance run, and bearings taken. I also enclose eye sketches of Cascade and Lion Bays and Lackawanna Harbor, by Lieut. Comd'r Walker, navigating officer, and a tracing from the English survey of Welcome Bay, with a shoal laid down that we discovered which is not on the Admiralty chart.

We arrived off Cape Virgins at noon on the 9th November, being then in lat. $52^{\circ} 01'$, long. $68^{\circ} 20'$, with the Cape about sixteen miles distant, bearing S. by E. $\frac{1}{2}$ E.; weather calm, sea smooth, and time of low water about 3 p. m. Passed nearly midway between the Cape and the position of Gipsev Shoal, laid down as doubtful in 1863, and kept a lookout for it from the mast-head with a glass, but saw nothing of it. We were hardly near enough to have seen it if it does exist, even if it was awash at low water.

As recommended by the admirably clear and exact sailing directions of King and Fitzroy, brought Cape Virgins to bear N. W. $\frac{1}{2}$ N. at 10 to 12 miles distant, to clear the tail of Sarmiento Bank, and then hauled up to the westward and followed the north shore, avoiding Dungeness Point and Wallace Shoal. Did not get the flood tide with us until nearly halfway to Cape Possession, when it helped us greatly,

at the same time setting us toward the north shore. Anchored in 15 fathoms at 8.30 p. m., a little to N. E. of anchor on chart. Next morning got under way at slack water, about 7.30, with the hope of reaching Sandy Point by starting with the first of the flood; but had hardly moved before the appearance of the weather, which so far had been good, underwent a sudden change; indications of a heavy squall gathering quickly in the N. W. Was very much disposed to anchor again, but kept on, believing we could get through the first Narrows and into St. Jago Bay before a blow would come on.

I felt some considerable anxiety about passing between Orange Bank on the south and the shoals on the north, as these dangers lie *under* water, and as it is not possible to frame accurate directions for bearings to avoid them. All the rest of the way through the straits is plain sailing compared to this particular place, and to be borne along by a four or five knot current in addition to the speed of the ship, without any chance for soundings between banks whose limits had to be mainly guessed at, naturally causes some perplexity. However, as we should have the whole rise of the flood tide to float us off in case we struck, and as we were well to the northward of "Orange Bank," I determined not to bring up on *it*, and therefore hugged the "Narrow Bank," having the land as more of a guide on that side, until we brought the first Narrows open and got the bearings of Mt. Aymond and Orange Peak for entering them, when steered for the opening, and soon found ourselves clear of the shoals.

Just before entering these Narrows the squall which had been threatening from the N. W. struck us, blowing with great violence, and accompanied with hail and rain and thick weather, almost hiding all landmarks from our sight. In a few moments, however, it passed off along the land towards Cape Possession, and we had a brief interval of clear, calm, and warm weather, which deluded us into the belief that we should still have a fine day to take us to Sandy Point, when quite suddenly the wind came out S. W. and blew so hard as soon to raise quite a sea, even in the Narrows, which grew higher as we cleared them, and compelled us to seek an anchorage under the northern shore as soon as we could clear the shoal off Barrancas. Indeed, between the violence of the wind and the force of the short sea, the ship, with all the steam we could give her, would make no headway at times, and lost all steerage way, (being carried along with the tide,) falling off towards Triton Bank in a way that was rather alarming. However, we managed to get her head in the right direction, and at 1 p. m. anchored off Valle Point in nine fathoms,

with 90 fathoms chain, and remained there five days before the gale ended.

This anchorage sheltered us very well from the sea, and the land being low to windward, we did not feel any "williwaws," but had the steady force of the gale, which on some days moderated about sunset to commence again at daylight. The tide was scarcely felt, and the ship was wind-rodé during her stay. Observed the rise and fall of the tide every half hour, and found that it would continue to run to the eastward (ebb) for more than an hour after it began to rise.

On the 15th got under way at slack water about noon, and had a fine afternoon to steam to Sandy Point, having no trouble on the way, and finding the chart and sailing directions all sufficient; a small fore-and-aft schooner following us.

At Sandy Point found an American pilot (Mr. Howard) awaiting a steamer for Valparaiso, and engaged him. The Chilian governor hopes to work the coal mine (nine miles distant) by-and-by, but as yet nothing has been done towards it, and he is not sure that his government will undertake the job.

Left Sandy Point early on the 17th, and had a calm and smooth day. At 8 p. m. anchored in York Roads—a very good place for passing a night. On the 18th made an early start, and had another calm day, though cloudy, with rain at times. Sent down lower yards and housed topmasts.

In Sea Reach, met with quite a swell from the westward, and the weather became so thick that it seemed doubtful at times, after passing Cape Tamar, if we could find our way into Smyth's Channel; but the land, though often obscured, still showed itself enough for our guidance, and we passed the Fairway Islands at 3 p. m. and anchored under the southernmost one of the Otter Islands at 8 p. m., in 8 fathoms water, quite satisfied to have such fine steaming weather from Valle Point, and more so to have escaped further detention in the straits.

This anchorage at the Otter Islands is an excellent one in all respects, and far preferable to that of Welcome Bay, 15 miles beyond, where we had to stop next morning on account of thick weather, and where we remained ten days awaiting a chance to go on. During our detention here we had a constant succession of squalls of wind, snow, hail, and rain, from N. W. to S. W.

The barometer stood from 29.99 to 28.96, (two inches,) without being attended with any change in the weather.

In sounding around the ship after anchoring, we found a shoal place with two fathoms on it (and very likely less) at low water, in a

bed of kelp, a short distance astern of us, and in a line with the north point of the bay, the northern islet, and the two outermost rocks in open bay. This shoal is not laid down on the plan of Welcome Bay, Admiralty chart, No. 2804, corrected to 1865, of which I enclose a tracing with its position marked. We took up another berth nearer to the northern islet, so as to leave more room astern in respect to this shoal with the wind at N.W. The bottom at Welcome Bay is rocky, foul, and very unequal in depth. We had to poke about for some time without soundings with 25 fathoms line up and down, then got 12 (at the gangway) and let go the anchor, veered 60 fathoms chain, and had 22 fathoms at the gangway and under the stern; ship's head N.N.W. When she swung in to the westward had 11 fathoms at the gangway.

As the ship sheered about to the squalls, the grinding of the chain over the rocky bottom shook her from end to end and made a startling noise. When we got up the anchor the fifteen-fathom shackle of the chain and several adjoining links were quite bright from thus rubbing over the rocks.

We cut cedar wood every day that we remained at Welcome Bay, but it was not very convenient to the beach.

We left Welcome Bay on the 29th, a. m., with promise of a clear day, but soon had thick weather overhead, with rain; kept on, as we could see the shore on either hand, and by noon had some blue sky. At 5 p. m. anchored in the centre of the outer harbor of Puerto Bueno, in 14 fathoms water. This anchorage is well sheltered, but is small, and leaves no room to ride with a long scope out. The soundings on the plan of the harbor, (Admiralty chart, 2804,) corrected to 1865, are laid down wrong. The depth is greater all over the outer harbor. We laid in 14 fathoms, where the plan showed eight.

Left Puerto Bueno early on the 30th, with a blue sky overhead and other indications of a fine day, but had a thick squall from N.W. in half an hour, and afterwards some intervals of clear weather, but more of squally, with rain; was just able to see our way along.

Saw nothing of rock off Cape Charles reported by Commander Shirley in the "Suwanee;" kept well in with the Cape in passing. At 6.35 anchored in Cascade Bay, in $7\frac{1}{2}$ fathoms, muddy bottom, abreast of second waterfall; could not get soundings with 25 fathoms until up with this fall, when struck 10 fathoms and let go.

There is no plan of Cascade Bay; it is a narrow inlet, making in to the S. E., about three-quarters of a mile deep, with high hills on

either hand, and low land at its head, where a river empties itself. Saumarez Island protects it from northwest winds, and, as it is sheltered from all others, it is an excellent anchorage.

Had rain and thick weather during the night. Ship laid with her head towards the S. E., riding to the tide, which seemed to be influenced by the water from the river.

Got under way early a. m. on December 1, with prospect of a fair day, and had better weather than we have found since the day we ran from Vallee Point to Sandy Point, but still had some rain during the forenoon.

Our coal being now pretty well expended, determined to go into a small cove just south of Eden Harbor for wood, the pilot having put in there about a month ago in the steamer "Isabella" (formerly Robert E. Lee, blockade runner) for wood, and recommended the place as the best available anchorage for that purpose. The entrance is not easy to discover in passing, and is only 180 feet wide at its narrowest part, expanding into a lagoon of about an eighth of a mile wide and one-half long, running nearly north and south; secured the ship by letting go the anchor in five fathoms, under the N. W. shore, and running lines out from the quarter to the S. E. Remained here four days and cut eighty cords of wood, about all there was to be found fit for steaming purposes; so that I cannot recommend any other vessel to enter with the expectation of wooding. Left this snug little cove (which I named "Lackawanna" Harbor) on the 6th December, very early, the bar. 29.99, and every indication of a fine day. Weather continued good until we passed English Narrows. Did not take the track recommended by Commander Shirley, as the tide was running very strong to the southward, and the pilot was unwilling to risk it, having tried it, with the tide setting southerly, in the "Isabella" and got nearly thrown ashore. In making the short turn we were twice caught by the tide, and sheered towards the port shore against the helm; gave her more steam each time, shot out of the eddy, and got her to mind the helm in time. Afterwards, in getting by the next island on the port hand, the tide took her again on starboard bow and sheered her to port against the helm, and pushed her nearer the shore than before, but she recovered herself in time to go clear. With the tide from the southward, I should take Shirley's course; with tide from the northward, I should take the old track.

Soon after clearing these Narrows the wind freshened to a gale from N. N. W., with rain and thick weather. We could see our way, however, and held on for Lion Bay.

At 3 p. m. ran into Lion Bay and anchored in 12 fathoms in a very

wild-looking berth, with rocks awash and a kelp patch rather near us. Moored east and west, finding the bottom very unequal, from five to twenty-five fathoms, as the ship swung. Sent a boat to sound about the ship; reported three fathoms on kelp patch, and unequal but deep enough soundings everywhere else. During the night it blew violently (about 11) from N.W. to W. S.W., sending in quite a sea, and causing heavy breakers on the S. E. shore, from which the ship's stern was very little more than her length distant. Bar. 29.39.

At 10 a. m. the wind suddenly fell and shifted to S. E.; at the same instant the barometer went up .05, from 29.39 to 29.44; run out the stream anchor to the eastward; let it go, and hauled the ship stern to it, to keep her off the kelp patch, near the rocks awash, should she swing that way. Sounded the patch again, and found *two rocks*, with *three* feet water only, and 30 to 35 fathoms N. E., E., and S. E. of us. Sent up topmasts and lower yards. On the 7th and 8th, weather improving. Found strong tide setting out to the westward; not so strong when running in. Went in a boat between Middle Island, at head of bay, and south shore, through a clear passage, (no bottom at 10 fathoms,) into a beautiful sheet of water, extending many miles north and south, a mile wide in some places, and completely land-locked, but apparently leading into the main channel to the northward, and perhaps also to the southward. Got no bottom with 30 fathoms. If a good depth for anchoring can be found here, this place will hold a fleet in perfect safety. Lion Bay, being about forty-five miles from the Gulf of Peñas, is a convenient stopping-place, but we had some trouble from not taking up the best berth. In going in pass midway between the south shore and the next islet; avoid the rocks awash and the kelp patch, which you will see on your port bow, and, having got to the eastward of them, hunt about for good bottom near the N.W. shore and moor, if the weather is bad.

In getting our anchors one came up without the stock and with one palm broken, and the other with half of one fluke gone. We left this anchorage early on the 9th December, having to cut and slip the stream cable, and had a clear, mild, and warm day to run out with. Sounded while passing Miller Island, (where British steam sloop-of-war *Alert* reports 7 and 8 fathoms,) but got no bottom with 10 fathoms.

Entered the Gulf of Peñas at 2 p. m., and at 8 were fairly in the Pacific. Next day, with the barometer at 29.86, we had a fresh N. N.W. wind, with thick, rainy weather, and a heavy swell from the west, and congratulated ourselves that we had been so fortunate in regard to the weather the day before.

We were under way on 11 days, lay at anchor 19 days through stress of weather, and staid one day at Sandy Point.

The barometer was of no use to us whatever after leaving Magellan Straits. While we remained in the channels on the west coast of Patagonia it ranged from 28 to 30 inches, without any change of the weather taking place.

The cedar wood which we cut answered very well for steaming. We used it without coal, and made as much speed as when burning anthracite or English coal. Other wood which we tried would not make steam enough to get along with.

Very respectfully, your obedient servant,

WM. REYNOLDS,
Captain, U. S. Navy.

Commodore THORNTON A. JENKINS, U. S. N.,
Chief of Bureau of Navigation, Washington, D. C.



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Navy Department,

Bureau of Navigation,

Hydrographic Office,

Washington, June 30, 1867.

By authority of the Bureau of Navigation I have the honor
to present to the

Königliche Hof- und Staats Bibliothek

One copy of List of Reported Dangers
in the Pacific Ocean.

Exchange requested through the Smithsonian Institute.

I am, very respectfully,

Your obedient servant,

Wm. Scott Fildbrown,
Amor. U.S. Navy.

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A list of the reported dangers to navigation in the Pacific Ocean, whose positions are doubtful, or not found on the charts in general use Compiled at the Bureau of Navigation, Navy Department, Washington City

Washington 1866

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